



# **Pregnancy and Single Parenthood in the Navy: Results of a 1997 Survey**

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REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is limited to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE September 1998		3. REPORT TYPE AND DATE COVERED Final
4. TITLE AND SUBTITLE Pregnancy and Single Parenthood in the Navy: Results of a 1997 Survey			5. FUNDING NUMBERS Program Element: Reimbursable Work Unit: N0002297WRDW501	
6. AUTHOR(S) Patricia J. Thomas, Zannette A. Uriell				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Navy Personnel Research and Development Center 53335 Ryne Road San Diego, California 92152-7250			8. PERFORMING ORGANIZATION AGENCY REPORT NUMBER NPRDC-TR-98-6	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Chief of Naval Personnel Special Assistant for Women's Policy (PERS-OOW) Washington, DC 20370			10. SPONSORING/MONITORING	
11. SUPPLEMENTARY NOTES Functional Area: Personnel and Organizational Assessment Product Line: Women and Multicultural Research Effort: Integration of Woman				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12B. DISTRIBUTION CODE A	
13. ABSTRACT (Maximum 200 words)  The 1997 Navy Survey of Parenthood and Pregnancy consisted of core items from prior versions and new items to investigate current concerns of Navy management. A disproportionate sampling scheme was used to maximize the number of respondents who had become pregnant the previous year. The surveys were mailed directly to 16,000 officer and enlisted women and men, and were answered anonymously.  The Navy's annual pregnancy rates parallel civilian rates for age cohorts. Half of the women experiencing an unplanned pregnancy were not using birth control, whereas the pill was the most failure-prone method of contraception. Pregnant women in deployable units had more adverse outcomes than women on shore duty.  More enlisted men were single parents in 1997 than in 1992. Less than 20% of the single pregnant women received counseling on the help available to them in obtaining financial support from the baby's father. There has been no increase in compliance with the requirement to complete a Family Care Certificate since 1992.  The major recommendations were to: (1) conduct a prospective longitudinal study comparing the pregnancies of women assigned to sea duty type commands to those of women on shore duty; (2) attempt to reduce unplanned pregnancies by improving birth control education and expanding family planning efforts; and (3) emphasize the importance of the Family Care Certificate and the need to help single pregnant women obtain financial support.				
14. SUBJECT TERMS Pregnancy, single parent, birth control			15. NUMBER OF PAGES 80	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED	

## **Foreword**

The 1997 Navy Survey of Parenthood and Pregnancy is the fourth in a series that began in 1988. The surveys were designed to monitor the numbers of single parents and pregnant women in the Navy, and investigate personnel issues associated with these two groups. The current study was funded by work request N0002297WRDW501, and was sponsored by the Women in the Navy Advisor to the Chief of Naval Personnel.

The authors are grateful to the women and men of the Navy who responded to the survey in record numbers. They answered very personal questions and, in so doing, provided the Navy with the information needed to make changes.

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# Summary

## Purpose

The Navy Survey of Parenthood and Pregnancy was designed to investigate variables associated with single parenthood and pregnancy, gather data needed to monitor the number of single parents and pregnant women in the Navy, and evaluate the implementation of policies for managing these two groups. In addition, the survey addressed women's health care as delivered by Navy medical providers.

## Approach

The 1997 survey consisted of core items, which had appeared in prior versions, and new items to investigate current concerns of Navy leadership. A disproportionate sampling scheme was used to maximize the number of respondents who had become pregnant the previous year. The surveys were mailed directly to 16,000 officer and enlisted women and men, and were answered anonymously. In the analysis, responses were weighted to provided data representative of the paygrade distribution of Navy personnel.

## Findings

The Navy's annual pregnancy rates parallel civilian rates for age cohorts. Almost two-thirds of the pregnancies among enlisted women that occurred in fiscal year 1996 were unplanned. Half of the women experiencing an unplanned pregnancy were not using any method of birth control, whereas the pill was the most failure-prone method of contraception among women practicing birth control. Women who became pregnant while in a deployable unit had more adverse outcomes (e.g., fetal loss, health problems) than women on shore duty.

Single parenthood rates were unchanged from 1992 except among enlisted men, whose current rate was significantly higher. Divorce was the most common cause of single parenthood among officers and male enlisted; among female enlisted, being unmarried when the child was born was a major cause. Less than 20% of the single pregnant women received counseling on the help available to them from the Navy in obtaining financial support from the baby's father. There has been no increase in compliance with the requirement to complete a Family Care Certificate since 1992.

## Recommendations

The major recommendations were to:

1. Conduct a prospective longitudinal study to determine why women assigned to sea duty type commands suffer more fetal losses than women on shore duty.
2. Attempt to reduce the number of unplanned pregnancies by improving birth control education and expanding efforts to influence Sailors to plan their families.
3. Emphasize to commands the importance of the Family Care Certificate and the responsibility to offer single pregnant women help in obtaining financial support.

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## Introduction

Since the advent of the All Volunteer Force, the percentage of women in the military has risen from 5% to 13% (Office of Assistant Secretary of Defense, 1997). As women became essential components of the armed forces, the need to address the biological and social concomitants of motherhood could no longer be ignored. Prior to 1980, most military men had scant experience with pregnant service women. Moreover, despite the number of military fathers with underage dependents, parenthood rarely intruded upon the work environment.

### Parenthood

Twenty-five years ago, nearly all Navy parents were male service members with civilian wives (or ex-wives). Although women were in the Navy at that time, none was a parent because Executive Order No. 10240 (April 27, 1951) provided for the discharge of women who became pregnant or had custody of a child for more than 30 days a year. Thus, military assignments that resulted in family separation were of little concern to policy makers because civilian mothers were responsible for the children.

Like men who joined the military after the draft expired, today's military women are similar to their civilian peers. While only 18% of all military women were married in 1973, by 1995 49% were married (Office of the Assistant Secretary of Defense, 1996). Concomitant with this phenomenal change, regulations against mothers in uniform gradually weakened (Thomas, P. J. & Thomas, M. D., 1993). With the majority of military women marrying military men, the Navy and other services had to develop policies addressing dependents of dual-military parents; children of single parents also were a concern. Who would care for the kids when Dad and/or Mom deployed became a readiness issue.

In 1984, Chief of Naval Operations (OPNAV) Instruction 1740.4 was promulgated "to ensure availability of all personnel in short-notice situations." This regulation mandated that dual-military parents and single parents with custody complete a Dependent Care Certificate (predecessor of the Family Care Certificate), naming a custodian for their children under several military contingencies. Compliance with this requirement was spotty. Indeed, a survey conducted in 1988 revealed that 57% of the men and 24% of the women who should have completed the form had never heard of it (Thomas, P. J. & Edwards, 1989). The Chief of Naval Personnel directed that compliance with the instruction receive increased emphasis. Subsequently, the service records of over 600 single or dual-military parents, more than 60% of whom were stationed overseas, were searched to determine whether Dependent Care Certificates were present. Valid forms (i.e., updated within the past 15 months and signed by the proposed custodian) were found in only 14% of these parental service records, invalid forms in 19%, and for 67% of the parents, no form was found (Thomas, P. J. & Thomas, M. D., 1992).

The Persian Gulf War highlighted the importance of parents making plans for military exigencies. Although public opinion was divided on the issues, two separate bills were introduced into the Senate and two into the House in 1991 to exclude from future combat single parents and one parent in a dual-military marriage. Neither bill became law but the Department of Defense

recognized the need for family care plans in both the active and reserve force (Department of Defense, 1992). Recently, the Navy reemphasized the importance of these plans by expanding its instruction to cover service members with a truly dependent spouse (i.e., limited facility with English or non-driving), elderly parents or disabled family member whom they care for, or a civilian spouse who is frequently away (Department of the Navy, 1996). Simultaneously, the name of the required form was changed to Family Care Certificate.

## **Pregnancy**

As noted earlier, military women who became pregnant used to be honorably discharged. This policy changed gradually; first, to permit waivers of the policy (1975) and then, to retain women unless they had a compelling need to leave the service (1989). Later, the Secretary of the Navy issued a revised instruction that recognized pregnancy as a natural event, and emphasized that "pregnancy and parenthood are compatible with a naval career" (Department of the Navy, 1995). Despite the matter-of-fact tone of the new policy, many military leaders still view pregnancy as a problem; i.e., pregnancy results in absenteeism, must be taken into account when making assignments, and might negatively affect readiness.

Because of concerns over the impact of pregnancy on Navy commands, numerous studies have been conducted since 1975 when the services ceased involuntarily discharging pregnant women. These studies focused on absenteeism (Olson & Stumpf, 1978; Thomas, P. J., 1987; Thomas, P. J., Thomas, M. D. & Robertson, 1993), impact of pregnancy on work centers and Navy personnel systems (Thomas, M. D., Thomas, P. J. & McClintock, 1991; Thomas, P. J. & Thomas, M. D., 1992), and issues surrounding women transferred off ships due to pregnancy (Newell & Thomas, P. J., 1993; Thomas, M. D., 1993; Thomas, P. J., 1996). The results of most of these studies indicated that pregnancy is manageable and no more intrusive than events affecting men more so than women.

Pregnancy among women serving aboard ships, however, is difficult to manage because of the need to protect the health and careers of pregnant service members without degrading the mission of the command. Although the Navy's pregnancy policy allows pregnant women to remain aboard the ship until the 20th week of gestation, except during routine underway periods, many are transferred ashore early. At times, they leave because the ship is deploying,<sup>1</sup> and at other times they are transferred at the request of the Commanding Officer. Regardless of the reason, the ship is shorthanded until a replacement arrives.

The question of whether the shipboard environment is a risk factor for pregnant women has not been fully answered in research conducted to date by the Navy. Nice, Calderon, and Hilton (1997) studied outcomes of the pregnancies of women who were hospitalized at Navy medical facilities between 1982 and 1992. They found that women assigned to ships at the time of conception were at no greater risk for a spontaneous abortion *requiring hospitalization*, fetal death, or ectopic pregnancy than women assigned ashore. However, as the authors pointed out, the vast majority of women in the sea-duty sample were assigned to submarine tenders or destroyer tend-

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<sup>1</sup>OPNAVINST 6000.1A states that pregnant women cannot deploy or even get underway unless the ship is within six hours of a naval medical hospital at all times.

ers—ships that have a physician aboard. Thus, access to medical care for women in these types of ships did not differ greatly from that of women ashore.

### **Navy Surveys of Parenthood and Pregnancy**

The need for accurate figures on rates of pregnancy and of single parents in the Navy was highlighted in the Navy Study Group's Report on Progress of Women in the Navy (Secretary of the Navy, 1987). Subsequently, the first survey devoted to measuring their prevalence was administered in 1988 (Thomas, P. J. & Edwards, 1989). The data proved to be so useful that the Chief of Naval Personnel directed that the survey be readministered biennially.

Analysis of data collected in 1988, 1990, and 1992<sup>2</sup> revealed that women have higher rates of single parenthood than men (although there are numerically more male single parents), and enlisted personnel have higher rates than officers. Moreover, single parenthood is more common among career personnel than among those in their first enlistment. Point-in-time pregnancy rates were found to be very stable; at any time approximately 9% of enlisted women are pregnant (Thomas, M. D., 1993). The rates varied greatly by age group, paralleling the pattern of fertility rates of civilian women. That is, women in paygrades E-4 and below, or between the ages of 20 and 24, have the highest pregnancy rates.

## **Method**

### **Survey Development**

The core items in the 1997 *Survey of Parenthood and Pregnancy* replicated items administered in 1988, 1990, and 1992, with minor adaptations to reflect changes that had occurred.<sup>3</sup> As in the past, new questions were developed to probe issues of current concern to Navy policy makers. The primary issue for the 1997 survey was prevention of unplanned pregnancy while on sea duty.

The survey was initially drafted with guidance from the Women in the Navy Advisor to the Chief of Naval Personnel. This draft was reviewed by a working group that had been convened in August 1996 to recommend changes to the Navy's pregnancy policy. As a result of the group's suggestions, questions about medical care and ectopic pregnancy were added to the survey. The revised drafts of the women's and men's forms of the survey were pilot tested with officer and enlisted personnel at the Bureau of Naval Personnel. After minor changes, the final drafts were sent to the Survey Operations Center (SOC) at the Navy Personnel Research and Development Center for preparation in an optical scan format. The men's form was shorter than the women's, terminating before the section titled Pregnancy. Copies of both forms of the approved survey are provided as Appendix A and Appendix B, respectively.

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<sup>2</sup>The survey was not administered in 1994.

<sup>3</sup>For example, the question on method of contraception was expanded to include Depo-Provera® and Norplant®, and the name of the Dependent Care Certificate was changed to the new Family Care Certificate.

## Sampling Design

The sample was designed to provide a sufficient number of respondents within each paygrade cell to yield reliable results; i.e., 200 officers of each gender, 350 enlisted women, and 200 enlisted men or a total of 5,800 respondents. The number of personnel to send surveys to was determined by applying the response rates by paygrade groups that had been obtained with the 1995 Navy-wide Personnel Survey (Kantor, Ford, & Heron, 1996).<sup>4</sup> Thus, it was not a randomized representative sample, based on the paygrade distribution of Navy personnel, but was randomized within strata.

The rationale for disproportionate sampling was based on several considerations. The primary target of the survey was young women, due to their high fertility rate. A large enough sample was needed to examine the responses of subgroups of these women; for example, by sea versus shore assignment. Moreover, for both women and men, E-2 to E-4 Sailors<sup>5</sup> constituted the group whose attitudes toward and information regarding birth control were of greatest interest. These personnel are primarily first termers and were anticipated to be the focus of any interventions that would be based on the results of the survey.

## Procedure

The number of personnel within each of the 24 cells (12 paygrade and two gender groups) who were to receive surveys was provided to the SOC for extraction of the samples from the officer and enlisted master personnel files. A randomizing program was applied to ensure representativeness within the cells. Personnel who were being transferred within six months were not considered for inclusion, to minimize the number of surveys that would have to be forwarded.

The women's surveys were mailed directly to their work addresses on 14 February 1997; the men's surveys were mailed a week later. Postcards were sent two weeks and four weeks after the initial mailings, as a reminder to those who had not returned their surveys. Because of the anonymous mode of administration, these postcards went to everyone in the sample. The telephone number of the SOC manager was indicated on the cards to accommodate requests for replacement of a lost survey or to answer questions.

Three months after mailing the surveys, the data-gathering window closed. The surveys were scanned by the SOC and a data tape provided to the principal investigator for analysis. Table 1 provides an accounting of the number of surveys mailed, returned, and found to be usable. The overall response rate of 50% was higher than has been reported for other recent large-scale Navy surveys.<sup>6</sup>

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<sup>4</sup>Response rates with that survey varied from 17% for E-2/E-3 to 72% for O-4/O-5.

<sup>5</sup>E-1 are not included in most general samples of Navy personnel because of the short period of time that they remain at that level (usually no more than six months) and their training status, which results in a high proportion of misaddressed surveys.

<sup>6</sup>Both the Navy Personnel Survey and the Navy Equal Opportunity/Sexual Harassment Survey have had response rates of less than 45% since 1993.

**Table 1**  
**Survey Response Rate**

	<b>Women</b>	<b>Men</b>
Surveys mailed	9,951	5,992
Non-deliverable surveys	682	343
Potential sample	9,269	5,649
Completed surveys	4,804	2,680
Return rate	52%	47%

### **Data Analysis**

The *Navy Survey of Parenthood and Pregnancy* did not lend itself to scale development. Although the items were grouped into topical areas, response distributions for each individual item were needed by the research sponsor. As a consequence, frequencies and percentages were the primary mode of analysis.

Eleven of the 12 paygrades and ranks were analyzed separately. The exception was E-8 and E-9, which were combined. The reasons for this grouping are that the population of women is small at these levels ( $N = 364$  for combined group) and the probability of their being pregnant or single mothers of a minor is low. Male E-8 and E-9 were also grouped to provide parallel results.

The data were weighted whenever Navy-wide statistics were computed, or the effect of a variable other than paygrade was investigated. That is, because of disproportionate sampling, simple percentages of all women or all men would yield inappropriate results. Weights were determined for each sampling cell, based on the distribution of active duty Navy personnel in January 1997.

Comparisons were made among the common items in the four administrations of the survey. Tests for statistical significance were between the 1992 and 1997 results, rather than overall trends, because of the changes that have occurred over the past five years in the utilization of Navy women. Confidence levels were computed for individual items central to the investigation from the standard errors of proportion within each cell. These statistics provide an estimate of the error rate of the obtained percentages, or a range within which the "true" population percentages reside. Because of the size of the sample, a .01 probability level was adopted for tests of statistical significance.

## Results Regarding Single Parenthood

### Rates of Single Parenthood

As shown in Figures 1 through 3, rates of single parents who have custody of their children vary with paygrade, rank, and gender. Seven percent ( $\pm 1.6\%$ ) of women officers indicated that they were single parents of a child under the age of 21; among enlisted women the rate was 14.7% ( $\pm 1.0\%$ ). The single-parenthood rate of men was .8% ( $\pm .6\%$ ) for officers (not graphed) and 2.7% ( $\pm .8\%$ ) for enlisted. The 1992 single-parenthood rate of enlisted men was 1.5%, significantly lower than the rate obtained with the 1997 survey ( $z(3,627) = 2.60, p < .01$ ). For all other groups, the rates had not changed significantly over the 5-year period.

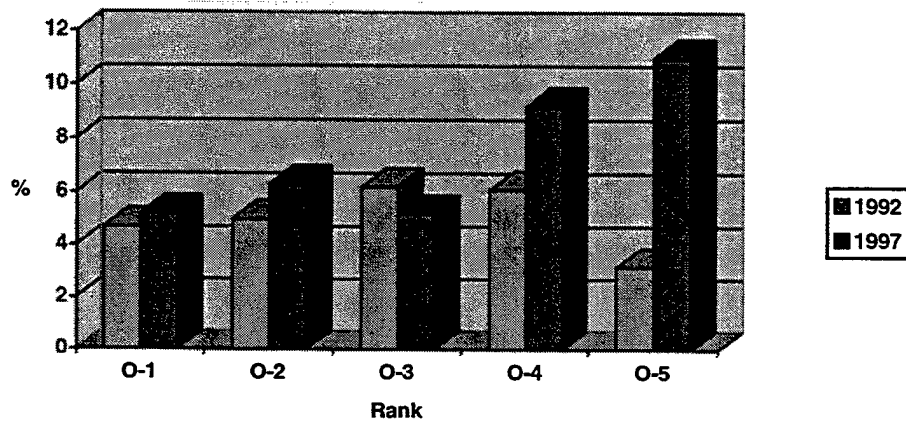


Figure 1. Percentage of women officers by rank who were single parents.

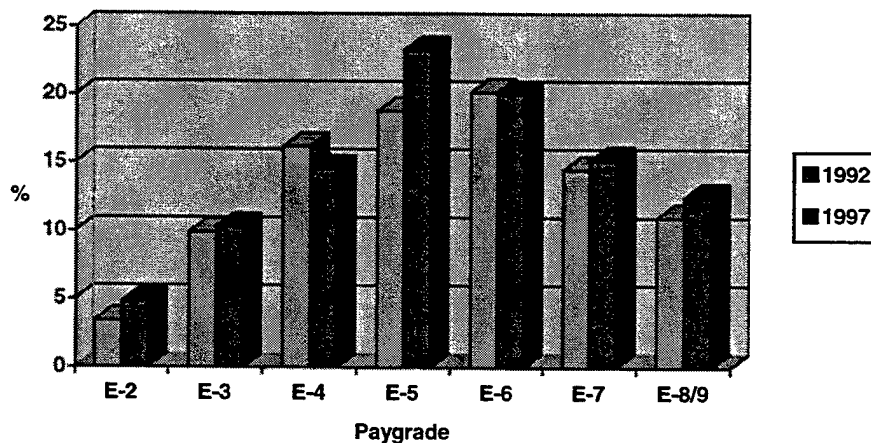
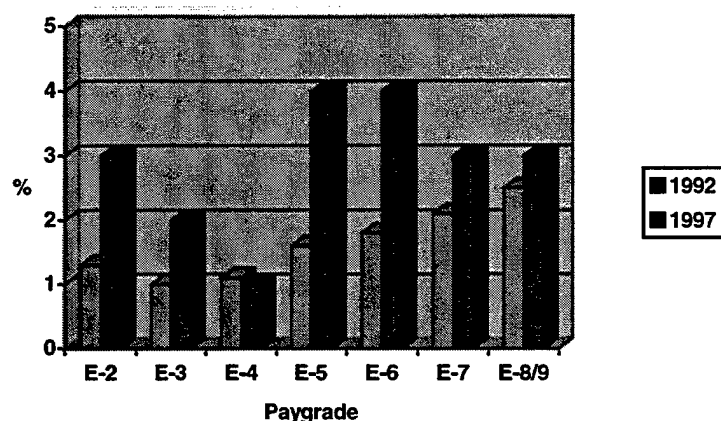


Figure 2. Percentage of enlisted women by paygrade who were single parents.



**Figure 3. Percentage of enlisted men by paygrade who were single parents.**

Women had higher rates of single parenthood than men,<sup>7</sup> and enlisted had higher rates than officers.<sup>8</sup> Paygrade was significantly related to single parenthood among enlisted women.<sup>9</sup> Among enlisted, the rates are highest at the E-5 and E-6 levels; among officers, the peak is at O-4 and O-5.

Civilian rates of single parenthood are reported as the percentage of households with children under the age of 18 that are headed by only one parent. According to recent data from the Census Bureau (Bureau of Labor Statistics, 1996), 27.1% of American families with minor children were single-parent households. The Navy rate is 8.5% for single-parent households with children under age 21. Enlistment and separation policies are partially responsible for the Navy rate being lower than that of civilians.<sup>10</sup> However, the major explanation of the difference in these rates lies in the gender distribution in the Navy; i.e., women have higher single-parent rates than men, but represent only 12.8% of the Navy. If the Navy were 50% female, and all other relevant conditions remained the same, the Navy rate of single parenthood would be 18.5%—still well below the civilian rate.

### Comparison to Married Parents

Table 2 shows that among women, officers who were single parents were older than married parents, whereas enlisted single parents were younger than their married peers. While enlisted men displayed a pattern similar to enlisted women, the difference was not statistically significant. The age comparison between officer and enlisted women who were single parents also achieved significance ( $t(616) = 10.68, p < .001$ ). This difference probably arises from the manner in which the two groups became single parents (see Table 4).

<sup>7</sup> Women vs. men officers,  $z(N = 1,822) = 6.84, p < .001$ ; women vs. men enlisted,  $z(N = 5,529) = 13.24, p < .001$ .

<sup>8</sup> Officer vs. enlisted women,  $z(N = 4,712) = 6.16, p < .001$ ; officer vs. enlisted men,  $z(N = 2,639) = 3.28, p < .01$ .

<sup>9</sup>  $X^2(6, N = 3,828) = 128.23, p < .001$ .

<sup>10</sup> Unmarried parents must legally relinquish custody of their children in order to enlist. Single parents with custody may be separated from the Navy if they cannot name a caretaker for their children on the Family Care Certificate.

Table 2

Comparison of Single and Married Parents<sup>a</sup>

	Female Parent				Male Enlisted Parent	
	Officer		Enlisted		Single	Married
	Single	Married	Single	Married		
Mean age <sup>b</sup>	37.4	35.4	28.3	29.9	29.9	31.8
Mean number of children <sup>c</sup>	1.4	1.7	1.4	1.8	1.5	1.9
Race <sup>d</sup>						
White	73%	85%	47%	63%	58%	67%
Black	17%	9%	43%	24%	30%	15%
Other	10%	6%	11%	14%	11%	18%
Hispanic descent	4%	5%	8%	9%	16%	9%
What are your career plans? <sup>e</sup>						
Leave at end of enlistment/obligation	10%	13%	18%	20%	17%	13%
Stay, but not until retirement	5%	5%	12%	9%	5%	6%
Stay until eligible to retire	71%	67%	46%	53%	59%	69%
Undecided	15%	16%	23%	18%	19%	13%

<sup>a</sup>Because only .8% of male officers were single parents, no analyses were conducted of this group.<sup>b</sup>Officer,  $t(378) = 2.57, p = .011$ ; female enlisted,  $t(1,454) = 4.55, p < .001$ .<sup>c</sup>Officer,  $t(380) = 2.82, p < .01$ ; female enlisted,  $t(1,462) = 7.47, p < .001$ ; male enlisted,  $t(804) = 3.07, p < .01$ .<sup>d</sup>Female enlisted,  $X^2(2, N = 1,435) = 57.61, p < .001$ .<sup>e</sup>Female enlisted,  $X^2(3, N = 1,446) = 13.77, p < .01$ .

Single parents had fewer children than married parents. Race also was a factor. Black women were overrepresented among enlisted female single parents, both in comparison to married parents and to their representation in the Navy (30% of enlisted women are black). While distributions by race for single-parent women officers and enlisted men also revealed this pattern, the chi-squares did not achieve significance. Hispanics did not have a disproportionate number of single parents in any of the groups analyzed.

The career plans of enlisted women who were single parents differed from the plans of their married peers. Fewer single parents than married were going to stay in the Navy until eligible to retire, and more were undecided.

To provide some perspective for the single-parent statistics, the distributions obtained from the weighted samples were applied to Navy population figures for O-1 to O-5 and E-2 to E-9 women and men. Table 3 represents these data and shows that Navy women and men differ on the basis of both marital and parental status; i.e., proportionally more men than women are married, and more men have children. Among officers, 77% of the men and 59% of the women are married; among enlisted, 59% of the men and 41% of the women are married. Among officers, 53% of the men and 42% of the women are parents; among enlisted, 47% of the men and 38% of the women are parents. Numerically, but not proportionally, more men than women are single parents.

**Table 3**  
**Estimates of Numbers of Parents and Nonparents<sup>a</sup>**

	Women		Men	
	<u>N</u>	%	<u>N</u>	%
Parent	20,576	39.0	173,146	47.6
Unmarried	7,158	13.5	8,931	2.5
Married with military spouse	6,047	11.5	5,634	1.5
Married with civilian spouse	7,371	14.0	158,581	43.6
Nonparent	32,204	61.0	190,832	52.4
Unmarried	22,779	43.2	131,197	36.0
Married	9,425	17.8	59,635	16.4

<sup>a</sup>O-6 and above and E-1 are not represented in this table because they were absent from the survey sample.

## Comparisons Among Single Parents

Single parents cannot enlist or be commissioned in the Navy unless they relinquish custody of their children by means of a legal document (Commander, Navy Recruiting Command Instruction 1130.8 Series). Moreover, enlisted single parents are not supposed to regain custody until after completion of their first enlistment. If they do so, an administrative separation may follow, but does not necessarily occur. Table 4 reveals that 24% of the women officers who are currently single parents had custody of their children when they entered the Navy, as did smaller percentages of men and enlisted personnel. However, the majority of single parents became single parents after entering the Navy.

Divorce was the primary reason for unmarried officers and enlisted men to obtain custody of their minor children. For enlisted women, being single when the child was born was the major cause for their single parent status.

By regulation (Chief of Naval Operations, 1996), a Family Care Certificate must be completed by custodial single parents, military-married-to-military parents, and single personnel with dependent relatives within 60 days of arriving at a command. This document provides information on responsible caretakers for these dependents when the service member deploys or is temporarily assigned elsewhere. Table 4 shows that significantly more of the women had completed the certificate than men. Completion of the certificate also was queried in the 1992 survey (Thomas, M. D., 1993). None of the comparisons for the two time periods was significantly different. Thus, compliance with the requirement has not changed. There was no difference in the compliance rates of single parents and dual-military parents.

Personnel who had not completed the Family Care Certificate were asked to rate the reliability of the arrangements they had made for the care of their children if they were recalled, deployed, or sent on an unaccompanied tour. Among women, 81% of the officers and 58% of the enlisted were reasonably sure that their arrangements would work as planned; among men, 73% of the officers and 59% of the enlisted thought their arrangements would work. The level of certainty increased significantly as rank increased for women officers and as paygrade increased for enlisted of both genders.<sup>11</sup>

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<sup>11</sup> For women officers,  $X^2(3, N = 106) = 13.38, p < .01$ ; for enlisted women,  $X^2(3, N = 646) = 81.64, p < .001$ ; for enlisted men,  $X^2(4, N = 250) = 13.46, p < .01$ .

Table 4

## Responses of Custodial Single Parents

	Women		Men	
	Officer	Enlisted	Officer <sup>a</sup>	Enlisted
When did you become a single parent? <sup>b</sup>				
I had custody of my child when I entered the Navy	24%	11%	na	3%
I did not have custody when I entered the Navy but got my child(ren) back afterwards	-	7%	na	-
I became a single parent after entering the Navy	76%	82%	na	97%
How did you become a single parent? <sup>c</sup>				
Divorce	61%	38%	na	48%
Unmarried when child born	21%	50%	na	34%
Adoption, Death, Other	18%	12%	na	18%
Have you completed a Family Care Certificate at this command <sup>d,e</sup>				
Yes	70%	73%	54%	59%
No, I have not been at this command 60 days yet	-	1%	-	-
No, I have been here 60 days but have not been told to do so	25%	20%	46%	33%
No, but I have been here 60 days and been told to do so	4%	6%	-	8%

<sup>a</sup>Sample was too small for meaningful analysis except when dual-military parents were added for the question on the Family Care Certificate.

<sup>b</sup>Officer vs. enlisted women,  $X^2 (2, N = 715) = 23.51, p < .001$ .

<sup>c</sup>Officer vs. enlisted women,  $X^2 (2, N = 731) = 23.28, p < .001$ ; enlisted women vs. enlisted men,  $X^2 (2, N = 740) = 9.45, p < .01$ .

<sup>d</sup>Sample included dual-military parents, whose responses did not differ from single parents.

<sup>e</sup>Women vs. men,  $X^2 (1, N = 1,229) = 11.76, p < .001$  (all "no" responses combined).

## Results Regarding Pregnancy

Items in the survey questioned women about pregnancy during three time periods: on the day the respondent answered the survey, during fiscal year 1996 (FY96), and at any time since joining the Navy. The question about current status is used to establish the point-in-time pregnancy rate, which has been monitored since 1988. The second question, which asks whether the respondent *became* pregnant in FY96, is used to establish an annual rate for comparisons to civilian data. This question was not included in prior versions of the survey. Instead, estimates of the annual rate were developed from the point-in-time rate. Finally, the question about any pregnancy while in the Navy provides samples large enough for special analyses.

### Point-in-Time Pregnancies

When the first version of the Survey of Parenthood and Pregnancy was analyzed, a point-in-time rate of 8.6% for enlisted women was obtained (Thomas, P. J. & Edwards, 1989). In 1990, the rate was 8.9% and in 1992 it was 8.4% (Thomas, M. D., 1993). Officers were included in the sample for the first time in 1992, yielding a pregnancy rate of 4.5%.

Figure 4 shows the current rates by paygrade for enlisted women. Data from 1992 are indicated for comparison purposes. The overall rate in 1997 was 8.4%—the same as in 1992. The 95% confidence limits are 7.6% to 9.2%. Paygrade was significantly related to being pregnant at the time of the survey.<sup>12</sup> Women in paygrades E-4 and below, 10.4% of whom were pregnant, accounted for 81% of the enlisted point-in-time pregnancies.

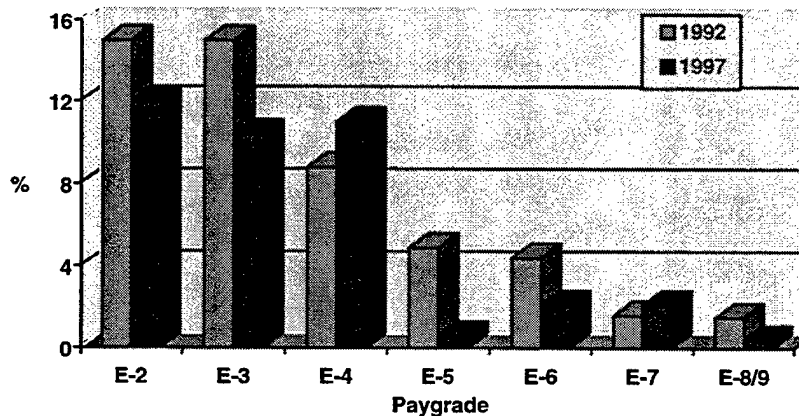


Figure 4. Enlisted point-in-time pregnancy rates by paygrade.

<sup>12</sup>  $\chi^2 (5, N = 3,788) = 63.28, p < .001$ .

The pregnancy rate of officers was 4.8% ( $\pm 1.3\%$ ), not significantly different from the 1992 rate of 4.5%. Rank did not influence the pregnancies of officers to the extent that paygrade did for enlisted. Figure 5 shows that O-2 officers (lieutenant junior grade) have the highest pregnancy rate.

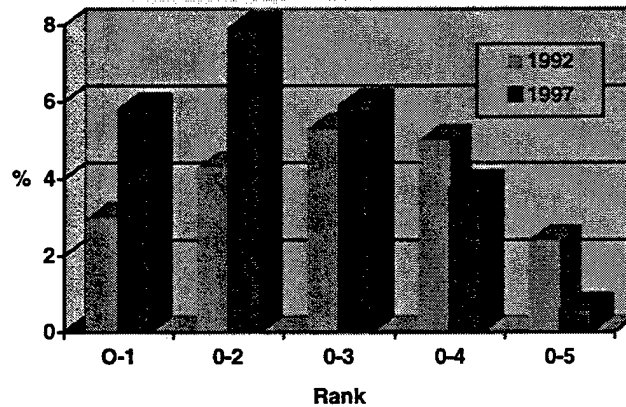


Figure 5. Officer point-in-time pregnancy rates by rank.

#### Pregnancies in FY96

In FY96, 10.2% of the officers and 16.2% of the enlisted women (19.3% of E-4 and below) became pregnant. These percentages provided sufficiently large samples (94 officers and 616 enlisted) to examine attitudes and other variables that might be related to pregnancy.

Assignment to a deployable unit influenced women's reproductive behavior. As shown in Figure 6, significantly fewer women on sea duty (types 2, 4, and 7, as defined by the Navy) became pregnant in FY96 than women ashore.<sup>13</sup> Parallel FY96 pregnancy figures for E-4 and below on sea duty and shore duty are 13.6% and 21.1%, respectively. Analysis of previous surveys, while based on a somewhat different question, yielded similar results. Thomas, P. J. and Edwards (1989) reported that the point-in-time pregnancy rate among enlisted women afloat was 6.8% versus 9.0% for women ashore. No annual data are available from that survey.

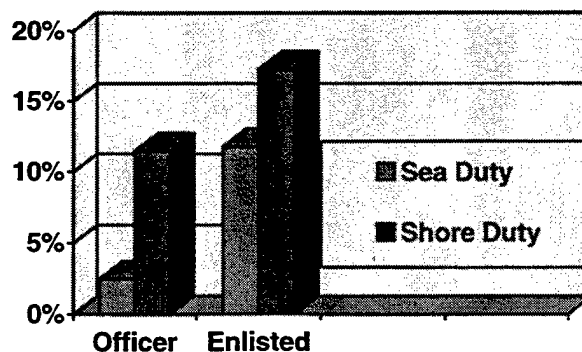
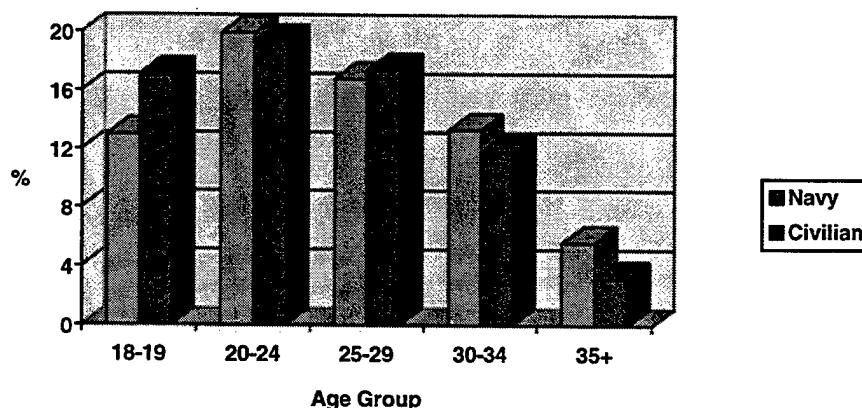


Figure 6. FY96 pregnancy rates by sea/shore assignment.

<sup>13</sup> For officers,  $X^2(1, N = 915) = 8.37, p < .01$ ; for enlisted,  $X^2(1, N = 3,789) = 18.20, p < .001$ .

Because pregnancy is age constrained and Navy women are not distributed across all age groups in the same manner as civilians, the most relevant comparison to make when attempting to examine differences between these two groups is between age cohorts. The civilian pregnancy rates shown in Figure 7 represent the sum of live births, elective abortions, and fetal loss (Ventura, Taffel, Mosher, Wilson, & Henshaw, 1995). The bars are almost identical for each age group of civilian and Navy women.



**Figure 7. Comparison between Navy and civilian pregnancy rates for age cohorts.**

Women who became pregnant in FY96 had been in the Navy a shorter period of time and were younger than women who had not become pregnant. There was no difference, however, in the length of time they had been at their commands. Table 5 also reveals that the career plans of the two groups differed. Women in the pregnant group were more likely to say they would leave the Navy at the end of their obligated service and less likely to stay until retirement than women in the nonpregnant group.

**Table 5**

**Comparison of Women Who Became Pregnant in FY96 and Nonpregnant Women**

	Officer		Enlisted	
	Pregnant	Nonpregnant	Preg-nant	Nonpregnant
Mean years in Navy <sup>a</sup>	7.7	9.9	4.6	6.4
Mean months at command	18.5	16.7	19.2	19.3
Mean age <sup>b</sup>	31.4	33.8	24.0	26.7
Current Navy plans <sup>c</sup>				
Leave at end of obligated service	28%	15%	36%	29%
Stay for another tour	10%	7%	15%	12%
Stay until eligible to retire	45%	55%	21%	36%
Undecided	17%	23%	28%	23%

<sup>a</sup>Officer,  $t(880) = 3.25$ ,  $p < .01$ ; enlisted,  $t(3,599) = 7.57$ ,  $p < .001$ ; pregnant officer vs. pregnant enlisted,  $t(668) = 6.20$ ,  $p < .001$ .

<sup>b</sup>Officer,  $t(908) = 3.27$ ,  $p < .01$ ; enlisted,  $t(3,782) = 9.01$ ,  $p < .001$ .

<sup>c</sup>Officer,  $X^2(3, N = 903) = 11.36$ ,  $p < .01$ ; enlisted,  $X^2(3, N = 3,736) = 52.06$ ,  $p < .001$ .

Navy policy (Department of the Navy, 1995) requires that women who are assigned to ships be transferred ashore by the 20th week of their pregnancy. Moreover, pregnant women in ships, aviation squadrons, and other deployable units cannot accompany their units when they deploy or routinely serve underway. Other situations that would require transferring or reassigning pregnant women include being stationed where inadequate medical care or housing is available, or working in an environment or at a job that poses a threat to the health of the mother or developing fetus. Thus, pregnancy may require that a woman be transferred and that someone else be assigned to take her place. Some of these actions would involve a geographic move,<sup>14</sup> but most transfers due to pregnancy result in women remaining in the same general area.

Three percent of the officers who became pregnant in FY96 and 18% of the enlisted women were assigned to deployable units (see Table 6). Only one-third of the pregnant enlisted women in these units actually were deployed or within 6 months of a deployment when they became pregnant (untabled). Responses to the question on transfers show that 95% of the officers and 76% of the enlisted women remained in their commands throughout their pregnancy. The majority of those who were transferred were utilized in jobs outside of their occupational specialties.

**Table 6**  
**Assignments of Women Who Became Pregnant in FY96**

	Officer	Enlisted
Type of command when became pregnant <sup>a</sup>		
Sea duty <sup>b</sup>	3%	18%
Shore duty	97%	82%
Had orders to sea duty when became pregnant <sup>c</sup>	4%	17%
Transferred or scheduled for transfer due to pregnancy <sup>d</sup>		
From sea to shore duty	2%	13%
To another work center in same command	2%	9%
Other type of transfer	3%	10%
No, continued to work in same place	93%	67%
Type of work after transfer		
Same as before but in a different place	35%	28%
Administrative/clerical not in occupational specialty	27%	36%
Other than administrative/clerical work	38%	36%

<sup>a</sup> $\chi^2 (1, N = 700) = 12.96, p < .001$ .

<sup>b</sup>Deployable unit, such as ship, aviation squadron, or construction battalion.

<sup>c</sup> $\chi^2 (1, N = 699) = 9.07, p < .01$ .

<sup>d</sup> $\chi^2 (1, N = 774) = 24.92, p < .001$ .

<sup>14</sup> For information on the cost of moving men, pregnant women, and nonpregnant women off ships prior to their scheduled rotation date, see Newell & P. J. Thomas (1993).

The instruction on the management of pregnant service women (Department of the Navy, 1995) directs that commands be notified promptly when a pregnancy is verified. Table 7 indicates that enlisted women were more likely to comply with this requirement than officers. Fully 15% of the officers and 12% of the enlisted did not inform their commands until after the 10th week of their pregnancies. Analysis of their responses to an open-ended question revealed that many of the women who delayed notification beyond 1 week did not want the information to become public until they decided whether or not to obtain an abortion. Another common reason was to avoid as long as possible being negatively stereotyped as a pregnant woman.

**Table 7**  
**Interactions of Pregnant Women With People in Their Commands**

	Officer	Enlisted
Did she notify the command within one week of verifying pregnancy? <sup>a</sup>		
Yes	57%	73%
No, because she wanted to delay command finding out	23%	8%
No, some other reason	20%	19%
Did her command offer information on how to obtain financial support from the father?		
No, since woman was married they probably thought she didn't need it	87%	42%
No	13%	48%
Yes	-	10%
Did her supervisor treat her differently after she became pregnant?		
No <sup>b</sup>	61%	44%
Yes, showed more concern for her welfare <sup>c</sup>	19%	33%
Yes, was overprotective	-	5%
Yes, with less respect, avoided or ignored her	19%	18%
Did her coworkers treat her differently after she became pregnant?		
No	55%	47%
Yes, were more supportive	27%	24%
Yes, hassled or ignored her	13%	19%
Yes, were overprotective	11%	10%

<sup>a</sup>X<sup>2</sup> (1, N = 641) = 8.46, p < .01 (all "no" responses were combined when computing X<sup>2</sup> statistic).

<sup>b</sup>Z (699) = 3.01, p < .01.

<sup>c</sup>Z (699) = 3.00, p < .01.

One of the responsibilities of commands toward pregnant women that is outlined in the instruction is to "ensure that servicemembers will be afforded the opportunity to take advantage of available legal assistance for advice regarding their options in establishing paternity" (Department of the Navy, 1995). Very few of the women were informed of this help, although there is no indication that they were refused access to this service. Many did not need the information because they were married. However, none of the unmarried officers and less than 20% of the unmarried enlisted women were advised of the assistance the Navy would provide to ensure that they received child support.

The treatment of pregnant women by supervisors and coworkers usually was no different from what they had experienced prior to the pregnancy. About a quarter of the sample indicated that their coworkers were more supportive than before, and that their supervisors showed more concern for their welfare. Less than 20% experienced negative reactions from the people in their work centers.

Ideally, all pregnancies would be planned. Table 8 shows that 77% of the officers who became pregnant in FY96 and 35% of the enlisted women had planned to have a child. For enlisted women, paygrade was significantly related to whether the pregnancy was planned or not. Comparable civilian data are difficult to collect but it is estimated that almost 60% of the pregnancies of American women are unplanned (Hogue, 1997; Rubin, 1997).

**Table 8**

**Pregnancy Planning by Women Who Became Pregnant in FY96**

Paygrade/Rank at Time of Pregnancy	Pregnancy Was Planned <sup>a</sup>	Pregnancy was Unplanned	
		Using Birth Control	Not Using Birth Control
O-1	68%	19%	13%
O-2	67%	7%	27%
O-3	83%	4%	13%
O-4/5	77%	12%	12%
Weighted Total	77%	8%	15%
E-2	20%	26%	53%
E-3	32%	24%	44%
E-4	46%	17%	37%
E-5	48%	18%	34%
E-6	66%	3%	31%
E-7/8/9 <sup>b</sup>	83%	-	-
Weighted Total	35%	21%	44%

<sup>a</sup>For enlisted women, planning was significantly related to paygrade ( $X^2 (4, N = 608) = 49.36, p < .01$ ). In addition, the planning rates of officers and enlisted differed ( $X^2 (1, N = 704) = 57.36, p < .001$ ).

<sup>b</sup>The only woman whose pregnancy was unplanned choose not to answer the question on use of birth control.

For the group that had not planned their pregnancies, a comparison was made between those who were and were not using birth control when they became pregnant. Paygrade was not related to effective use of birth control among these enlisted women. That is, the high rates of pregnancy among E-2 through E-4 were more a result of their not using any method of contraception than of their being careless with a chosen method. Moreover, the "failure rate" of the pill among E-4 and below was 59%—very similar to the rate of 54% for more senior enlisted personnel.

In isolation, the responses to the first question in Table 9 would seem to indicate that officers were more apt to engage in unprotected sex than enlisted women because so few of the officers who had an unplanned pregnancy were using birth control. Instead, when interpreted with knowledge of the high percentage of officer pregnancies that were planned, a very different conclusion is reached.

**Table 9**  
**Events Associated With Conceptions for Women**  
**Who Became Pregnant in FY96**

	Officer	Enlisted
Were you using birth control? <sup>a</sup>		
Yes	13%	31%
No	87%	69%
What method of birth control were you using? <sup>b</sup>		
Birth control pill	14%	58%
Condom	14%	29%
Rhythm, withdrawal	29%	6%
Diaphragm, spermicidal jelly, or other method	43%	7%
Were you or your partner drinking within 3 hours of sex?		
No <sup>c</sup>	99%	85%
Yes, he was	-	4%
Yes, I was	1%	1%
Yes, we both were	-	10%
What was the father's military status? <sup>d</sup>		
In Navy	38%	62%
In another service	13%	10%
Civilian	49%	28%

<sup>a</sup> $\chi^2 (1, N = 703) = 22.58, p < .001$ .

<sup>b</sup>By those whose pregnancies were unplanned.

<sup>c</sup> $\chi^2 (691) = 3.80, p < .001$ .

<sup>d</sup> $\chi^2 (2, N = 699) = 21.54, p < .001$ .

Officers were better contraceptors than enlisted in that fewer became pregnant while using birth control. Despite its demonstrated effectiveness (Fenly, 1989), the most failure-prone contraceptive for enlisted women was the birth control pill; for the small number of pregnant officers who had been practicing birth control (i.e., 13%), rhythm was the least effective method.

Alcohol has been linked to sexual activity and contraceptive behavior among adolescents (Brooks-Gunn & Furstenberg, 1989). As a consequence, alcohol consumption by the woman or her partner in the 3 hours prior to sexual intercourse was questioned. For 15% of the enlisted women who had an unplanned pregnancy, alcohol may have been a factor; for officers, it was not.

The final question on conception in Table 9 queried the military status of the man who fathered the child. Among officers, almost half of the fathers were civilians; among enlisted, almost two-thirds were Navy men.

Women who had become pregnant in FY96 were asked about the outcome of their pregnancy. In Table 10, the responses of enlisted women have been separated into those who were on sea duty (defined by the Navy as Types 2, 4, and 7 duty, meaning assigned to a ship, deploying squadron, or other deploying unit) and those on shore duty when they became pregnant. There were too few officers who became pregnant while on sea duty to analyze separately.

**Table 10**  
**Outcome of FY96 Pregnancies by Shore/Sea Assignment**

	Officer <sup>a</sup>	Enlisted <sup>b</sup>	
		Shore	Sea
Term birth (after 36th week)	83%	64%	46%
Premature birth (20th - 36th week)	6%	9%	10%
Stillbirth (20th week or later)	-	1%	1%
Miscarriage (before 20th week)	3%	12%	22%
Ectopic pregnancy	3%	1%	3%
Elective Abortion	6%	13%	18%

<sup>a</sup>Only three of the women officers who became pregnant in FY96 were from sea duty units.

<sup>b</sup>When stillbirth, miscarriage, and ectopic pregnancy are combined to form the category of fetal loss, the comparison of pregnancy outcome for enlisted women by assignment was significant ( $X^2$  (2,  $N$  = 454) = 10.15,  $p$  < .01), as was the comparison between officers and enlisted ( $X^2$  (2,  $N$  = 528) = 11.89,  $p$  < .01).

Fully 89% of the officers were delivered of a live infant, as compared to 69% of the enlisted women (untabled). To test whether pregnancy outcome differed on the basis of officer/enlisted status or shore/sea duty, the three adverse outcomes (stillbirth, miscarriage, and ectopic pregnancy) were combined to eliminate small cells. Term and premature births also were combined into a category of live birth for the same reason. The obtained  $X^2$ s were significant, indicating that enlisted women had proportionately fewer live births than officers, and women assigned to sea duty billets had proportionately fewer live births than women assigned to shore billets when they became pregnant. Part of the reason for the officer/enlisted and shore/sea differences lies in their disparate abortion rates. However, removing from the samples women who obtained elective abortions, and recomputing the chi-squares did not affect the significance of the findings.<sup>15</sup>

Variables that might be related to fetal losses among women on sea duty were examined. Paygrade, age, and marital status were unrelated to pregnancy outcome for these women. Clinical studies (e.g., Martin, et al., 1982; Osborne, & Pratson, 1984) have found a relationship between sexually transmitted diseases (STD) and fetal loss, low birth weight, and shortened gestation pe-

<sup>15</sup> In the officer/enlisted comparison,  $X^2$  (1,  $N$  = 461) = 6.77,  $p$  < .01; in the sea/shore comparison,  $X^2$  (1,  $N$  = 391) = 8.40,  $p$  < .01.

riod. The survey included a question, "At any time since entering the Navy, have you ever had genital herpes, trichomoniasis, chlamydia, gonorrhea, syphilis, or other STD?" Responses to this question were unrelated to pregnancy outcome.

The mean number of weeks pregnant when transferred off the ship did differ significantly for women who experienced an adverse outcome versus those who had a live birth ( $t(45) = 9.82, p < .01$ ). Curiously, the mean number of weeks for the adverse outcome group was less than the mean of the live birth group (6.7 weeks versus 16.5 weeks). This finding suggests that the women in the former group were not experiencing a normal pregnancy, and were transferred promptly to a more benign environment.

All women in the sample, not just those who became pregnant in FY96, were asked two questions associated with sea duty: (1) "If you ever had a sea duty tour, were you tested for pregnancy before being transferred to the ship?" and (2) "If the current policy were changed and women having a normal pregnancy were allowed to go to sea until the 20th week, would you want to stay aboard ship if you were pregnant?" On the first question, 44% of the officers and 68% of the enlisted women indicated that they had been tested for pregnancy prior to an afloat duty tour ( $z(1,846) = 7.70, p < .001$ ). Responses differed by rank/paygrade indicating that the more junior the woman, the more likely that she was tested.<sup>16</sup> The opinions of officers and enlisted also were different on the second question.<sup>17</sup> Sixty percent of the enlisted women did not want to stay in a deploying unit if they became pregnant, as compared to 46% of the officers. Rank and paygrade significantly influenced responses to this question with more of the senior than junior women wanting to remain with their units.<sup>18</sup> The women's current duty status also influenced their attitudes toward this issue. Among officers, 50% of those in sea duty commands versus 29% of those in shore duty commands would want to remain with their units when they deployed ( $X^2(2, N = 903) = 14.60, p < .01$ ); among enlisted, 28% of those in sea duty commands versus 20% of those in shore billets would want to remain ( $X^2(2, N = 3,738) = 32.74, p < .001$ ).

### **Women's and Men's Attitudes Toward Family Planning and Birth Control**

Table 11 presents the responses of women and men to questions regarding the best age for a first pregnancy. The distributions of responses of officer and enlisted women, and of enlisted men differed based on their rank or paygrade.<sup>19</sup> Junior personnel were more likely to think that women should have their first child before age 25 than were their more senior shipmates.

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<sup>16</sup> For officers,  $X^2(4, N = 278) = 37.15, p < .001$ ; for enlisted,  $X^2(6, N = 1,568) = 28.98, p < .001$ .

<sup>17</sup>  $X^2(2, N = 4,708) = 64.12, p < .001$ .

<sup>18</sup> For officers,  $X^2(8, N = 909) = 28.40, p < .001$ ; for enlisted,  $X^2(12, N = 3,799) = 177.76, p < .001$ .

<sup>19</sup> For women officers,  $X^2(8, N = 896) = 22.48, p < .01$ ; for enlisted women,  $X^2(8, N = 3,777) = 228.80, p < .001$ ; for enlisted men,  $X^2(8, N = 1,705) = 25.96, p < .01$ .

**Table 11**  
**Family Planning Attitudes of Navy Women and Men**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
What age is best for a woman to have her first child? <sup>a</sup>				
Before age 25	7%	34%	20%	39%
25 - 29	71%	59%	73%	58%
30 or older	22%	8%	7%	3%
When in her career is it best for a woman to get pregnant? <sup>b,c</sup>				
Never, a Navy career & motherhood are incompatible	10%	15%	22%	25%
Whenever she wants to	21%	33%	15%	22%
After her first tour	6%	8%	5%	8%
On shore duty, but not after getting sea duty orders	50%	33%	43%	32%
After receiving shore duty orders, if ship is not deploying	12%	11%	15%	13%
When is it a good time for a man to start a family? <sup>d</sup>				
Never, it is too hard while in the Navy	3%	9%	5%	17%
Whenever he and his partner want a child	36%	47%	35%	35%
After his first tour	9%	10%	12%	13%
On shore duty, but not after getting sea duty orders	33%	21%	28%	19%
After receiving shore duty orders, if ship is not deploying	18%	13%	18%	16%

<sup>a</sup>Officer vs. enlisted women,  $X^2 (2, N = 4,668) = 321.89, p < .001$ ; officer vs. enlisted men,  $X^2 (2, N = 2,607) = 95.87, p < .001$ ; women vs. men officers,  $X^2 (2, N = 1,796) = 113.44, p < .001$ ; women vs. men enlisted,  $X^2 (2, N = 5,479) = 37.83, p < .001$ .

<sup>b</sup>The responses "while on sea duty" and "while in school" for this and the following question (untabled) were chosen by 1% or less of each group.

<sup>c</sup>Officer vs. enlisted women,  $X^2 (4, N = 4,640) = 111.30, p < .001$ ; officer vs. enlisted men,  $X^2 (4, N = 2,596) = 46.95, p < .001$ ; women vs. men officers,  $X^2 (4, N = 1,793) = 59.30, p < .001$ ; women vs. men enlisted,  $X^2 (4, N = 5,443) = 125.45, p < .001$ .

<sup>d</sup>Officer vs. enlisted women,  $X^2 (4, N = 4,625) = 106.31, p < .001$ ; officer vs. enlisted men,  $X^2 (4, N = 2,595) = 86.09, p < .001$ ; women vs. men officers,  $X^2 (4, N = 1,792) = 13.97, p < .01$ ; women vs. men enlisted,  $X^2 (4, N = 5,437) = 118.70, p < .001$ .

Timing pregnancy in regards to career issues yielded significant rank/paygrade results for all four groups.<sup>20</sup> More junior than senior personnel felt that a Navy career and motherhood are incompatible. Only 8% of chief petty officers endorsed this belief as compared to 34% of male E-2 and E-3 (21% of female E-2 and E-3). The officer data did not show an effect by rank. Junior personnel of both genders, more so than their seniors, agreed that women should become pregnant whenever they want. However, the most common attitude expressed by women and men (officer and enlisted) was that the best time for women to get pregnant is while on shore duty if they do not have orders to sea. Getting pregnant at the end of a sea duty tour when the ship is not scheduled to deploy also is advantageous in that it would maximize the years that a mother would be available to spend with her infant.

When questioned about timing of fatherhood, more respondents in all groups chose the response "whenever he and his partner want a child" than any other. However, an almost equally frequent response among women officers was during shore tours. There were two other response options for each of these questions regarding the best time to start a family that are not shown in the table; i.e., while on sea duty and while in school. Virtually none of the respondents thought that these were good times to become parents.

### **Attitudes Toward and Use of Contraception**

The first two statements in Table 12 address the comfort level of Navy personnel in dealing with Navy medical providers on the sensitive issue of birth control. All personnel, but most particularly women officers, are clearly less comfortable discussing birth control with a corpsman than with a medical doctor. The question concerning medical personnel in the ship resulted in different distributions for officers and enlisted, also. The statement does not specify contraception as the reason for the consultation, as did the previous two statements.

A comparison of responses to the remaining statements in the table reveals a more positive attitude on the part of officers than enlisted toward contraception; i.e., they were more likely to believe that birth control should be used after marriage, to take responsibility for discussing birth control with a partner, to have partners that encouraged use of birth control, not to find birth control embarrassing, not to engage in sex without contraception, and not to succumb to a partner's desire to have unprotected intercourse. Officers and enlisted did not differ, though women and men did, in their almost unanimous endorsement of the statement indicating that a woman has the right to say "no" to intercourse at any time.

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<sup>20</sup> For women officers,  $X^2(16, N = 887) = 32.95, p < .01$ ; for enlisted women,  $X^2(16, N = 3,751) = 285.81, p < .001$ ; for men officers,  $X^2(16, N = 904) = 32.71, p < .01$ ; for enlisted men,  $X^2(16, N = 1,693) = 103.62, p < .001$ .

Table 12

Percentage of Women and Men Endorsing<sup>a</sup> Statements Addressing Birth Control

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
I would feel comfortable going to a military doctor about birth control. <sup>b</sup>	88%	79%	79%	67%
I would feel comfortable going to a corpsman about birth control. <sup>c</sup>	53%	61%	58%	60%
I feel comfortable with the medical personnel aboard my ship. <sup>d</sup>	75%	35%	73%	53%
It's important to use birth control after marriage until you decide to start a family. <sup>e</sup>	94%	83%	90%	78%
A woman has a right to say "no" to intercourse at any time. <sup>f</sup>	98%	97%	96%	94%
I always take responsibility for discussing birth control with my partner. <sup>g</sup>	82%	76%	75%	63%
It is important for men to get involved in birth control. <sup>h</sup>	96%	95%	95%	89%
My most recent partner encouraged use of birth control. <sup>i</sup>	82%	70%	85%	66%

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<sup>a</sup>Not applicable response was removed before computing percentage and  $X^2$ . Data in the table represent combined "completely true of me" and "mostly true of me" responses from the resulting 5-point scale.

<sup>b</sup>Officer vs. enlisted women,  $X^2$  (4,  $N$  = 4,455) = 42.12,  $p$  < .001; officer vs. enlisted men,  $X^2$  (4,  $N$  = 2,292) = 45.32,  $p$  < .001; women vs. men officers,  $X^2$  (4,  $N$  = 1,684) = 36.63,  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 5,084) = 107.32,  $p$  < .001.

<sup>c</sup>Officer vs. enlisted women,  $X^2$  (4,  $N$  = 4,475) = 51.65,  $p$  < .001.

<sup>d</sup>Based on respondents in ships only. Officer vs. enlisted women,  $X^2$  (4,  $N$  = 443) = 37.13,  $p$  < .001; officer vs. enlisted men,  $X^2$  (4,  $N$  = 832) = 33.05,  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 1,027) = 44.25,  $p$  < .001.

<sup>e</sup>Officer vs. enlisted women,  $X^2$  (4,  $N$  = 4,299) = 89.01,  $p$  < .001; officer vs. enlisted men,  $X^2$  (4,  $N$  = 2,497) = 61.14,  $p$  < .001; women vs. men officers,  $X^2$  (4,  $N$  = 1,757) = 26.37,  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 5,041) = 39.55,  $p$  < .001.

<sup>f</sup>Women vs. men officers,  $X^2$  (4,  $N$  = 1,786) = 20.64  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 5,350) = 107.93,  $p$  < .001.

<sup>g</sup>Officer vs. enlisted women,  $X^2$  (4,  $N$  = 4, 160) = 14.43,  $p$  < .01; officer vs. enlisted men,  $X^2$  (4,  $N$  = 2,321) = 34.87,  $p$  < .001; women vs. men officers,  $X^2$  (4,  $N$  = 1,585) = 37.10,  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 4,896) = 122.18,  $p$  < .001.

<sup>h</sup>Officer vs. enlisted men,  $X^2$  (4,  $N$  = 2,548) = 30.89,  $p$  < .001; women vs. men officers,  $X^2$  (4,  $N$  = 1,780) = 15.644  $p$  < .01; women vs. men enlisted,  $X^2$  (4,  $N$  = 5,288) = 128.69,  $p$  < .001.

<sup>i</sup>Officer vs. enlisted women,  $X^2$  (4,  $N$  = 3,710) = 48.93,  $p$  < .001; officer vs. enlisted men,  $X^2$  (4,  $N$  = 2,026) = 90.95,  $p$  < .001; women vs. men enlisted,  $X^2$  (4,  $N$  = 4,332) = 26.30,  $p$  < .001.

Table 12 (Continued)

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
The whole idea of birth control is embarrassing to me. <sup>j</sup>	2%	3%	3%	5%
I've had sex without birth control even though I didn't want a pregnancy to result. <sup>k</sup>	13%	33%	22%	43%
Planning ahead for birth control can spoil the fun of sex. <sup>l</sup>	2%	3%	4%	7%
I would have sex without birth control if my partner wanted me to. <sup>m</sup>	5%	13%	22%	35%
When birth control is not available, you just have to take a chance and hope a pregnancy doesn't result. <sup>n</sup>	-	4%	3%	12%
Using condoms to prevent STDs is more trouble than it's worth. <sup>o</sup>	2%	3%	3%	5%

<sup>j</sup>Officer vs. enlisted women,  $X^2(4, N = 4,474) = 38.70, p < .001$ ; officer vs. enlisted men,  $X^2(4, N = 2,474) = 17.22, p < .01$ ; women vs. men enlisted,  $X^2(4, N = 5,195) = 73.26, p < .001$ .

<sup>k</sup>Officer vs. enlisted women,  $X^2(4, N = 4,264) = 191.36, p < .001$ ; officer vs. enlisted men,  $X^2(4, N = 2,396) = 127.92, p < .001$ ; women vs. men officers,  $X^2(4, N = 1,681) = 39.87, p < .001$ ; women vs. men enlisted,  $X^2(4, N = 4,979) = 57.50, p < .001$ .

<sup>l</sup>Officer vs. enlisted men,  $X^2(4, N = 2,490) = 26.60, p < .001$ ; women vs. men officers,  $X^2(4, N = 1,757) = 57.82, p < .001$ ; women vs. men enlisted,  $X^2(4, N = 5,138) = 201.72, p < .001$ .

<sup>m</sup>Officer vs. enlisted women,  $X^2(4, N = 4,306) = 77.49, p < .001$ ; officer vs. enlisted men,  $X^2(4, N = 2,400) = 65.92, p < .001$ ; women vs. men officers,  $X^2(4, N = 1,665) = 235.83, p < .001$ ; women vs. men enlisted,  $X^2(4, N = 5,041) = 578.74, p < .001$ .

<sup>n</sup>Officer vs. enlisted women,  $X^2(4, N = 4,372) = 72.25, p < .001$ ; officer vs. enlisted men,  $X^2(4, N = 2,481) = 117.55, p < .001$ ; women vs. men officers,  $X^2(4, N = 1,740) = 44.06, p < .001$ ; women vs. men enlisted,  $X^2(4, N = 5,112) = 224.60, p < .001$ .

<sup>o</sup>Officer vs. enlisted men,  $X^2(4, N = 2,535) = 18.88, p < .01$ ; women vs. men enlisted,  $X^2(4, N = 5,271) = 50.41, p < .001$ .

Gender significantly influenced the responses of enlisted personnel on all of the statements. In every case, the attitudes of enlisted women were more supportive of birth control than the attitudes of enlisted men. Paygrade or rank had little effect upon the opinions of men or women officers, only upon the responses of enlisted women. For almost all of the statements, higher paygrades were associated with more responsible attitudes toward contraception and sexual behavior.

Data concerning use or non-use of contraception is presented in Table 13. For these items, the behavior of couples was questioned. Thus, the findings indicate that the respondent or her/his usual partner used a specific method of birth control or did not use any method for a reason that might apply to only one of the partners (e.g., infertile).

Significantly more male officers than enlisted men indicated that they usually use birth control, or their partners do, but women did not differ significantly in this regard.

The preferred method of birth control showed several gender differences. Women and their partners were more likely than men and their partners to use the birth control pill and Depo-Provera®, whereas men were more likely to use condoms and surgical sterilization. Among women, more enlisted than officers used condoms and Depo-Provera®, and more officers than enlisted used diaphragms. Among men, more enlisted than officers used condoms with some other method and spermicides.

Reasons for not using birth control also yielded different responses for the various groups. Enlisted men were least likely to indicate that they were not sexually active, although their responses did not differ from those of male officers. Women officers were most likely to endorse this statement, more so than enlisted women and male officers. Reliance on rhythm as a method of contraception also yielded a large difference between women officers and enlisted men. Practicing the rhythm method was the only explanation for non-use of contraception on which the two groups of men differed. Among women, differences were found in regard to sexual inactivity, infertility, pregnancy, and rhythm. Over a quarter of the respondents choose the "other" response to this question. To gain some understanding of their motives, 600 surveys filled out by women were reviewed. The reason most commonly cited was that they were trying to conceive a child.

**Table 13**  
**Use of Birth Control by Navy Personnel**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
Do you or your partner usually use birth control? <sup>a</sup>				
Yes	80%	77%	85%	77%
No	20%	23%	15%	23%
If yes, what method do you use? <sup>b</sup>				
Birth control pill <sup>c</sup>	51%	53%	31%	33%
Condom alone <sup>d</sup>	25%	33%	32%	38%
Condom with another method <sup>e</sup>	14%	18%	9%	19%
Sterilized <sup>f</sup>	9%	10%	16%	16%
Spermicidal foam or jelly <sup>g</sup>	6%	5%	4%	7%
Depo-Provera <sup>h</sup>	4%	15%	2%	8%
Diaphragm <sup>i</sup>	4%	1%	2%	2%
IUD	2%	1%	1%	1%
Norplant <sup>j</sup>	1%	2%	1%	2%
Other	17%	9%	20%	10%
If no, why don't you?				
Not sexually active <sup>k</sup>	42%	28%	20%	16%
Infertile <sup>l</sup>	16%	7%	15%	10%
Pregnant <sup>m</sup>	12%	21%	16%	11%
Rhythm works fine <sup>n</sup>	4%	11%	12%	25%
Against religious beliefs	3%	4%	7%	7%
Other	24%	30%	31%	31%

<sup>a</sup>Officer vs. enlisted men,  $X^2 (1, N = 2,592) = 21.98, p < .001$ .

<sup>b</sup>Respondents could choose more than one method.

<sup>c</sup>Women vs. men officers,  $z (1,481) = 6.94, p < .001$ ; women vs. men enlisted,  $z (4,207) = 13.06, p < .001$ .

<sup>d</sup>Officer vs. enlisted women,  $z (3,625) = 3.79, p < .001$ ; women vs. men officers,  $z (1,481) = 2.93, p < .01$ ; women vs. men enlisted,  $z (4,207) = 3.16, p < .01$ .

<sup>e</sup>Officer vs. enlisted men,  $z (2,063) = 5.73, p < .001$ ; women vs. men officers,  $z (1,481) = 2.93, p < .01$ .

<sup>f</sup>Women vs. men officers,  $z (1,481) = 3.81, p < .001$ ; women vs. men enlisted,  $z (4,207) = 6.02, p < .001$ .

<sup>g</sup>Officer vs. enlisted men,  $z (2,063) = 2.94, p < .01$ .

<sup>h</sup>Officer vs. enlisted women,  $z (3,625) = 7.85, p < .001$ ; officer vs. enlisted men,  $z (2,063) = 5.92, p < .001$ ; women vs. men officers,  $z (1,481) = 2.72, p < .01$ ; women vs. men enlisted,  $z (4,207) = 6.63, p < .001$ .

<sup>i</sup>Officer vs. enlisted women,  $z (3,625) = 5.43, p < .001$ .

<sup>j</sup>Officer vs. enlisted women,  $z (1,041) = 3.69, p < .001$ ; women vs. men officers,  $z (323) = 4.09, p < .001$ ; women vs. men enlisted,  $z (1,250) = 4.56, p < .001$ .

<sup>k</sup>Officer vs. enlisted women,  $z (1,041) = 3.83, p < .001$ .

<sup>l</sup>Officer vs. enlisted women,  $z (1,041) = 2.61, p < .01$ ; women vs. men enlisted,  $z (1,250) = 4.22, p < .001$ .

<sup>m</sup>Officer vs. enlisted women,  $z (1,041) = 3.07, p < .01$ ; officer vs. enlisted men,  $z (532) = 3.24, p < .01$ ; women vs. men officers,  $z (323) = 2.72, p < .01$ ; women vs. men enlisted,  $z (1,250) = 6.03, p < .001$ .

Responses of women who had unplanned pregnancies in FY96 and were not using birth control to the question of why they didn't use contraception also were analyzed. The purpose for this analysis was to provide a focus for training. Table 14 provides the distribution of their answers.

**Table 14**

**Why Enlisted Women Who Had Unplanned Pregnancies in FY96  
Did Not Use Birth Control**

<b>Reason</b>	<b>Percentage</b>
Rhythm method or withdrawal works well enough	29
I am not sexually active	24
I (or my partner) have been sterilized	5
I (or my partner) am not fertile	2
My religious/personal beliefs do not permit use of birth control	2
Other reason	38

The support given by Navy medical and training personnel to women trying to practice contraception was also probed in the survey. Table 15 shows that although officers and enlisted were equally likely to use Navy medical providers, birth control was more apt to be discussed with the latter group. The disparity by gender was vast. Birth control was brought up during the physical examinations of 70% of women, regardless of status, but rarely was contraception discussed with men. Women's annual gynecological examinations are an ideal time for birth control counseling, but there is no parallel situation for men. Yet, military medical providers were a primary source of information on birth control cited by men. Apparently, the venue in which the information was obtained was not a physical examination.

Formal training on birth control is not usually conducted. Less than 30% of the enlisted respondents stated that they had a class on this topic during or following recruit training.<sup>21</sup> For the most part, local commands also are not providing instruction on contraception. However, Navy pregnancy policy is discussed in Navy Rights and Responsibilities (NR&R), a course that all hands are required to attend within 90 days of reporting to a command. Either the requirement is being ignored or the majority of survey respondents did not remember being trained in these issues.

A series of statements about the efficacy and hazards of birth control were included in the survey. The purpose was to identify misperceptions and inadequate knowledge concerning birth control so that training can be developed to counter these beliefs or deficiencies. Table 16 presents the percentages of women who responded "true" or "don't know" to each of the statements in this section.

<sup>21</sup> Since 1992, classroom lectures on methods of contraception have been a part of the curriculum of recruit training.

**Table 15**  
**Organizational Support for Birth Control**

	Women		Men	
	Officer	Enlisted	Officer	Enlisted
Last physical was at a Navy medical treatment facility	92%	93%	96%	94%
Birth control was discussed at that time <sup>a,b</sup>	68%	73%	3%	6%
What sources of birth control information have you used since entering the Navy?				
Military medical providers <sup>c</sup>	76%	76%	45%	51%
Class at recruit training	na	28%	na	27%
Post-recruit training <sup>d</sup>	na	13%	na	21%
Outside agency (clinic, doctor) <sup>e</sup>	22%	21%	28%	23%
Friends or relatives <sup>f</sup>	29%	40%	26%	33%
Books, magazines, pamphlets <sup>g</sup>	65%	59%	64%	58%
Other <sup>h</sup>	10%	5%	12%	11%
Which of the following training have you received at your current command?				
Methods of birth control <sup>i</sup>	18%	29%	20%	31%
Sexually transmitted diseases <sup>j</sup>	41%	51%	52%	64%
Navy's pregnancy policy <sup>k</sup>	33%	39%	29%	30%
None of the above <sup>l</sup>	46%	36%	43%	30%

<sup>a</sup>Based on respondents whose last physical was at a Navy facility.

<sup>b</sup>Officer vs. enlisted women,  $X^2(1, N = 4,355) = 9.82, p < .01$ ; officer vs. enlisted men,  $X^2(1, N = 2,472) = 12.85, p < .01$ ; women vs. men officers,  $X^2(1, N = 1,712), p < .001$ ; women vs. men enlisted,  $X^2(1, N = 5,115) = 1963.75, p < .001$ .

<sup>c</sup>Officer vs. enlisted men,  $z(2,623) = 2.93, p < .01$ ; women vs. men officers,  $z(1,828) = 13.56, p < .001$ ; women vs. men enlisted,  $z(5,516) = 18.44, p < .001$ .

<sup>d</sup>Women vs. men enlisted,  $z(3,808) = 7.59, p < .001$ .

<sup>e</sup>Officer vs. enlisted men,  $z(2,623) = 2.83, p < .01$ ; women vs. men officers,  $z(1,828) = 2.96, p < .01$ .

<sup>f</sup>Officer vs. enlisted women,  $z(4,721) = 6.154, p < .001$ ; officer vs. enlisted men,  $z(2,623) = 3.709, p < .001$ ; women vs. men enlisted,  $z(3,808) = 4.96, p < .001$ .

<sup>g</sup>Officer vs. enlisted women,  $z(3,808) = 3.33, p < .01$ ; officer vs. enlisted men,  $z(2,623) = 2.99, p < .01$ .

<sup>h</sup>Officer vs. enlisted women,  $z(4,721) = 5.73, p < .001$ ; women vs. men enlisted,  $z(5,516) = 8.15, p < .001$ .

<sup>i</sup>Officer vs. enlisted women,  $z(4,721) = 5.73, p < .001$ ; women vs. men enlisted,  $z(5,516) = 8.15, p < .001$ .

<sup>j</sup>Officer vs. enlisted women,  $z(4,721) = 5.43, p < .001$ ; officer vs. enlisted men,  $z(2,623) = 5.97, p < .001$ ; women vs. men officers,  $z(1,828) = 4.72, p < .001$ ; women vs. men enlisted,  $z(5,516) = 8.97, p < .001$ .

<sup>k</sup>Officer vs. enlisted women,  $z(4,721) = 3.36, p < .01$ ; women vs. men enlisted,  $z(5,516) = 6.43, p < .001$ .

<sup>l</sup>Officer vs. enlisted women,  $z(4,721) = 5.59, p < .001$ ; officer vs. enlisted men,  $z(2,623) = 6.67, p < .001$ ; women vs. men enlisted,  $z(5,516) = 4.35, p < .001$ .

Table 16

## Women's Beliefs Concerning Birth Control Efficacy

	Officer		Enlisted		X <sup>2</sup> 2, N= 4,690 <sup>a</sup>
	True	Don't know	True	Don't know	
Some prescription drugs interact with birth control pills making them less effective.	75%	17%	65%	31%	58.53
Condoms are as effective as the pill in preventing pregnancy.	17%	5%	30%	9%	86.00
Women cannot get pregnant during their menstrual period.	15%	3%	10%	9%	52.60
Birth control medicines (i.e., pill, Norplant®, Depo-Provera®) lead to cancer.	5%	33%	12%	59%	335.75
If a woman misses two or more pills in a row, she must use supplementary birth control method for the rest of the month.	86%	10%	76%	17%	45.14
Women who take the pill gain weight.	44%	13%	56%	19%	112.92
All methods of birth control are equally effective.	1%	2%	5%	10%	98.13
Skipping the pill is OK unless you plan to have sex that night.	1%	2%	2%	7%	38.91

<sup>a</sup>p < .001 for all X<sup>2</sup> values.

On most items, very few respondents selected the wrong response. However, the misperception that condoms are as effective as the pill was subscribed to by 17% of the officers and 30% of the enlisted. In normal use, condoms have a 14% failure rate as compared to 6% for the birth control pill (Fenly, 1991).

The “don’t know” responses also highlight areas where training is needed. Quite a few women were unaware of the fact that certain prescription drugs reduce the efficacy of the pill. They also were unsure whether chemical forms of birth control lead to cancer. However, almost all knew that skipping the pill for even one day negatively affects protection against unwanted pregnancy. On all of the items, women officers were better informed than enlisted women.

Two very reliable methods of birth control are now available through Navy medical providers—Norplant® and Depo-Provera®. Both are long term and do not require remembering to take a pill daily or use of a barrier prior to sexual intercourse. Because they are virtually failure proof, they are often recommended to women who are inconsistent in their use of other contraceptives. Yet, very few Navy women use either of these methods of birth control (see Table 13). Finding out why they do not was deemed important, particularly if false information was deterring them.

Table 17 shows that the two primary reasons why Navy women do not use Norplant® and Depo-Provera® are that they like their current methods and are afraid of the side effects (e.g., weight gain, spotting) of these long-term alternatives. A few women have tried them and discontinued use. Lack of information or availability through Navy medical providers were not major deterrents. The women who indicated another reason wrote in that they expected to start a family soon, were sterile, or were currently pregnant.

**Table 17**

**Reasons Why Navy Women Do Not Use Norplant® and Depo-Provera®**

*Question: Two long-term methods of birth control are now available: Norplant® and Depo-Provera®. What is the primary reason why you do not use one of these methods?*

	Norplant® <sup>a</sup>		Depo-Provera® <sup>b</sup>	
	Officer	Enlisted	Officer	Enlisted
I don't know enough about it.	11%	13%	13%	13%
I prefer my current method.	39%	27%	37%	22%
I am afraid of the side effects.	26%	38%	24%	33%
It's not available where I'm stationed.	1%	1%	-	-
I tried it and stopped using it.	1%	3%	5%	15%
Other	22%	17%	20%	16%

<sup>a</sup>X<sup>2</sup> (5, N = 3,154) = 65.68, p < .001.

<sup>b</sup>X<sup>2</sup> (4, N = 3,163) = 103.88, p < .001.

## Gynecological Care from Navy Medical Providers

Navy women are supposed to have an annual pelvic examination that includes having a Pap smear taken. Periodically, women have complained that they encounter difficulty in obtaining a timely appointment with the local Navy OB/GYN department and have to wait many weeks to hear the results of their Pap smear. Table 18 shows that these experiences are no longer common.

**Table 18**  
**Responses to Questions Regarding Gynecological Care**

	Officer	Enlisted	X <sup>2</sup> within Paygrade <sup>a,b</sup>	
			Officer	Enlisted
Have you had a pelvic exam in past 12 months?			27.69	116.80
No	13%	12%		
Yes, in Navy medical clinic or hospital	73%	76%		
Yes, in another DoD clinic or hospital	8%	6%		
Yes, in civilian medical facility/several facilities	5%	6%		
How long did you have to wait for an appointment? <sup>c</sup>			ns	137.25
Less than 1 week	26%	39%		
1 to 2 weeks	39%	36%		
3 to 4 weeks	25%	17%		
More than 4 weeks	10%	8%		
How long did you wait for results of your Pap smear? <sup>d</sup>			ns	177.87
Less than 1 week	6%	12%		
1 to 2 weeks	36%	41%		
3 to 4 weeks	40%	32%		
More than 4 weeks	18%	15%		
Have you had a baseline mammogram? <sup>e,f</sup>			19.19	131.18
Yes	90%	61%		
Will the Navy doctor prescribe the birth control you want?			ns	17.85
Yes	96%	95%		
How satisfied are you with Navy OB/GYN departments? <sup>g</sup>			ns	ns
Generally, very satisfied	40%	25%		
Generally, satisfied	47%	59%		
Generally, dissatisfied	8%	10%		
Generally, very dissatisfied	5%	6%		

<sup>a</sup>All X<sup>2</sup> values are significant at the .001 level.

<sup>b</sup>The lower the rank or paygrade, the more optimal the response, except for mammograms.

<sup>c</sup>Officer vs. enlisted, X<sup>2</sup> (3, N = 4,145) = 54.43, p < .001.

<sup>d</sup>Officer vs. enlisted, X<sup>2</sup> (3, N = 4,107) = 37.07, p < .001.

<sup>e</sup>Percentages are for women 40 and over.

<sup>f</sup>Officer vs. enlisted, X<sup>2</sup> (1, N = 568) = 56.61, p < .001.

<sup>g</sup>Officers vs. enlisted, X<sup>2</sup> (3, N = 4,626) = 83.34, p < .001.

Almost 90% of the women responding to the survey had had their annual pelvic examination. For 93% of the officers and 89% of the enlisted women, the medical visit was not part of a pre-deployment physical. Officers waited longer than enlisted to both obtain an appointment and to receive the results of their Pap smears. Among enlisted, paygrade was significantly related to responses to all four questions. Women in the lower paygrades were more likely than higher-ranked women to have had an annual pelvic examination, to have a short wait for an appointment, and to receive their Pap smear results promptly. A similar relationship between rank and gynecological care was found for officers, but only the question regarding the annual pelvic examination achieved significance.

Women over 40 years of age were questioned about whether they had had a mammogram. Ninety percent of the officers responded affirmatively, whereas only 61% of enlisted women had a baseline mammogram. Rank and paygrade were significantly related to responses to this question; i.e., the higher the military status, the more likely the woman had had a mammogram.

Almost all women stated that they were able to obtain the method of contraception that they wanted from Navy medical providers. All-in-all, these women were satisfied with the medical care they were getting from the Navy. Less than 20% were dissatisfied or very dissatisfied.

## **Discussion**

### **Single Parenthood**

Patterns of single parenthood among Navy personnel mirror the demographics of society at large; i.e., women have much higher rates than men, but the incidence among enlisted men is increasing. For Navy women the rate of single parenthood was unchanged from the 1992 survey, whereas the percentage of male Sailors who are raising children alone increased significantly. This finding probably results from men's greater involvement in fatherhood than in the past, and a willingness on the part of divorce courts to award them custody. It is also possible that the divorce rate among enlisted men has increased, but the Navy does not maintain the data that could be used to investigate this assumption.

Despite the similarity in trends, the Navy's rate of single parenthood is much lower than that of civilian society. Several factors are responsible for this difference. Men account for 87% of Navy personnel, and men are less likely than women to become single parents. Additionally, the peripatetic nature of military life creates unique child care problems for single parents, leading to the voluntary separation of those who find civilian employment more compatible. Finally, the Navy has policies that discourage single parents from entering the service and result in the discharge of those who are not available for worldwide assignment.

Half of the enlisted women who were single parents had been unmarried when their child was born and were still single. They were disproportionately young and black. Since black women in the Navy do not have a higher pregnancy rate than white women, the results suggest cultural differences in the acceptance of single motherhood. Although similar racial trends were noted among women officers and male enlisted, the differences did not achieve significance.

The percentage of single parents and dual-military parents who had completed the Family Care Certificate, which provides commands with names of civilians who would care for their dependents if the military parent were unavailable, has not changed since this issue was last monitored in 1992. The results of this inquiry did not suggest reluctance on the part of parents to comply with the regulation but, rather, laxity on the part of commands. That is, the majority of personnel who had not completed the certificate had not been told to do so. Women had higher rates of compliance with the regulation than men. It appears that commands were more diligent in ensuring that relevant female parents had a Family Care Certificate in their personnel files than they were with relevant male parents. The Navy should be concerned about this omission. Almost half of the enlisted single parents and dual-military parents without a Family Care Certificate did not have confidence in the other arrangements they had made for their children.

### **Pregnancy**

Officer and enlisted pregnancy rates had not changed since 1992. Other consistent findings were the absence of a racial effect on these rates, and presence of age and paygrade effects. Basically, the pregnancy rate is in a steady state. To some, this finding indicates that the obtained rates are immutable and should be considered part of the cost of having women in the Navy; for others, no change is the result of no efforts to decrease the pregnancy rate. The Navy recently approved a training video that was designed to encourage responsible decision making regarding parenthood. However, the video was not released until after this survey was administered.

Women officers delayed pregnancy longer than did enlisted women, probably because young officers tend to be more mature and career oriented than young enlisted. The extent to which postponement of pregnancy is due to demanding career paths could not be investigated with these data. This possibility should be of concern because delaying motherhood poses several problems. That is, fertility declines and adverse pregnancy outcomes increase after age 30. A study reported in the Journal of the American Medical Association (Cnattingius, Forman, Berendes, & Isotalo, 1992) concluded that women age 30 and older have 40% more stillbirths than women in their early twenties.

Pregnancy rates were high among junior personnel and declined sharply after the O-4 and E-4 levels. This finding has both positive and negative implications. On the positive side, women in whom the Navy has invested considerable training dollars and time have low pregnancy rates; on the negative side, women with the highest pregnancy rates are the most numerous in the Navy.

Women assigned to deployable units had significantly lower pregnancy rates than those on shore duty, continuing a trend first noted in 1988. Women on sea duty also had somewhat more elective abortions than women ashore despite the difficulty in obtaining an abortion if deployed. These results suggest that Navy women are attempting to time their pregnancies to coincide with shore tours. However, 17% of the women who became pregnant on shore duty had orders to sea duty. They would have been diverted to another command, requiring that a replacement be found. Conversely, some of the women who became pregnant on sea duty would have been near the end of their tours, and would not have become unplanned personnel losses.

The rate of unplanned pregnancies was high among enlisted women—indeed, two-thirds of the women who became pregnant in FY96 had not intended to. Many were using seemingly reliable methods of birth control when the pregnancy occurred, suggesting that they were not following the regimen required for effective contraception. Others were not using any barrier or chemical method of birth control, but relied on the rhythm method or infrequent sexual intercourse for protection. Needless to say, these methods often failed.

Officers who became pregnant in FY96 were more apt to deliver a live infant than were enlisted women. Moreover, enlisted women on sea duty were significantly more likely to suffer a fetal loss than those on shore duty. Despite an attempt to investigate correlates of adverse pregnancy outcomes, none of the survey variables that were explored was related to fetal loss. Because of the serious implications of the finding of a relationship between assignment location and adverse pregnancy outcome, an attempt was made to verify the results with other samples. A large-scale study of women's health has just been completed at the Naval Health Research Center in San Diego. The rate of miscarriage among women assigned to sea duty when they became pregnant was 12.5%, as compared to 9.1% for women assigned ashore (F. C. Garland, personal communication, November 25, 1997). Thus, the results from this survey were corroborated.

Notwithstanding the guidance in the Department of the Navy's pregnancy policy, women are not being offered counseling on the help available to them in establishing paternity. Young, unmarried women particularly need child support because they are in the lower paygrades where monthly pay is likely to be inadequate for off-base housing and infant care in addition to normal expenses. Because of the sensitivity of the topic, supervisors probably do not want to question women on whether they need such help. However, the assistance should be offered even if it only consists of suggesting that the mother-to-be talk with someone in the command's legal office about her options.

Another aspect of the policy that is not being universally followed is prompt reporting of pregnancy. Fifteen percent of the officers who became pregnant in FY96 delayed 10 weeks or more in telling their commands about their gravid condition. Early notification is essential because the first trimester of pregnancy is the most critical period for a developing fetus. Women whose work exposes them to potential teratogens or other hazards should be removed from the working environment as early in the pregnancy as possible.

Attitudes regarding family planning and use of birth control were tapped to provide a focus for training or behavioral interventions to reduce the number of unplanned pregnancies. Both the women's and men's versions of the survey contained these items. Generally speaking, the vast majority of women officers expressed attitudes reflecting responsible sexual behavior and supporting their commitment to the Navy when planning to have children. Fewer of the other respondents subscribed to these beliefs, with male Sailors having the lowest endorsement rates.

The military wants its personnel to take work responsibilities into consideration when planning to have children. For the Navy, deployment periods are particularly inopportune times for parenthood to occur. Men aboard deployed ships or on unaccompanied tours are likely to be distracted as their wife's delivery date approaches or if her pregnancy is medically complicated. Pregnant women assigned to deploying ships must be moved ashore, and those overseas must be

returned to the continental U.S. if adequate medical or billeting facilities are not available at the location where they are assigned. Starting a family during the first enlistment also is not wise because of the strain put on the finances of young servicemembers. Ideally, pregnancies should be timed for shore tours and after the completion of the first enlistment.

Officers, particularly women, indicated that first pregnancies should occur when women are 25 years of age or older, thus, opining that women in their first enlistment should not start a family. Over a third of enlisted Sailors thought that before the age of 25 was the optimal time for a woman to start a family. The less committed attitude of junior enlisted (than officer) personnel also was reflected in their greater endorsement of the statement that the best time in a woman's career to have a child is whenever she wants. Interestingly, the family planning attitudes of enlisted women varied with paygrade, whereas the attitudes of enlisted men and officers did not. Perhaps, women who think that military responsibilities should not influence family planning decisions do not stay in the Navy.

The number of men who felt Navy women should never become pregnant was higher than anticipated. Paygrade significantly influenced this attitude, leading to the conclusion that fully one-third of E-2 and E-3 men believe that motherhood and a Navy career are incompatible. Very few of the chief petty officers (E-7 to E-9) agreed with the premise that Navy women have to forgo having children. Yet, chief petty officers have the primary responsibility for managing the day-to-day work of personnel, and would have to make any adjustments that pregnancy would require. Interestingly, few respondents felt that serving in the Navy is incompatible with fatherhood, suggesting that most Navy personnel believe child rearing is more of a woman's job than a man's; or, they may think that the period of pregnancy itself is the problem. Moreover, the need for a man to defer the start of his family until he is on shore duty was not the most prevalent opinion as it was for a service woman.

The reasons given by respondents for not using contraception provide a focus for training. Male enlisted, more so than women and officers, rely on the rhythm method. When used very carefully, this method is as reliable as diaphragms in preventing pregnancy. However, there was evidence that many of the respondents practicing rhythm were having sexual intercourse during periods when the female partner was fertile. Not being sexually active explained the behavior of women more so than men. This phrase appeared to connote something other than abstinence to some respondents. Fully one-fourth of the women who became pregnant in FY96 and who were not using any form of contraception stated that they were not sexually active. Perhaps, they believed that infrequent sexual intercourse would not result in conception. Whatever the basis of their reasoning, these results highlight the importance of including the "not sexually active" group in efforts to change behaviors.

Questions concerning Navy medicine's support for birth control yielded generally positive results. Health care providers are discussing contraception with the majority of women that they see, but with almost none of the men. Apparently, these medical personnel view birth control to be a women's problem. Almost all women indicated that they are able to obtain a prescription for the type of birth control that they want. In addition, they are seen promptly for OB/GYN appointments and receive the results of their Pap smears after a reasonable period of time.

The results highlighted the need for training in effective contraception. Although recruit training now includes a module on methods of birth control, there is very little reinforcement of

the information later on. Women admitted that one of their major reasons for not using Norplant® and Depo-Provera® were that they lacked sufficient information about the advantages and drawbacks of these methods. The side effects of these two highly reliable contraceptives include nausea, weight gain, and infertility for many months, after use is discontinued. The weight gain, in particular, is consequential for women who must meet a strict weight standard when tested semiannually. Thus, despite the effectiveness of these methods, acceptance by Navy women is likely to remain low.

Training is also needed to correct misperceptions about contraception. Enlisted women were less informed than officers in this regard. Over a third of enlisted women did not know that some antibiotics reduce the efficacy of the birth control pill, thought condoms are as effective as the pill, and do not know whether contraceptives lead to cancer.

## **Conclusions and Recommendations**

The results of this survey confirmed previous findings regarding single parents in the Navy. Again, women had higher rates of single parenthood than men, and mid-level officers and enlisted personnel had higher incidence rates than those above or below them. Two new conclusions are that single parenthood has increased among enlisted men, and black women have higher rates of single parenthood than white women. The development of a nondiscriminating recommendation to reduce the number of unmarried black mothers will take careful thought. However, action is needed to address the continuing problem of no pre-planning for care of dependents during military exigencies.

Conclusion: Compliance with the requirement for a completed Family Care Certificate has not improved since it was last measured in 1992.

Recommendation: The Chief of Naval Personnel (CNP) should remind Commanding Officers of the importance of having a valid Family Care Certificate on file for every dual-military parent and single parent in the command. In addition, CNP should emphasize the need for periodic review of the certificates to ensure that they are still valid.<sup>22</sup>

The analysis of the pregnancy items in the survey also led to some conclusions that have resulted from past surveys; namely, that pregnancy rates of Navy women are the same as their civilian age cohorts, and that the Navy's enlisted point-in-time pregnancy rate is between 8% and 9%. Although all of the findings listed below are not unique, they lend themselves to recommendations for improvement.

Conclusion: Women serving in deployable commands when they become pregnant experience more fetal losses than women serving on shore duty.

Recommendation: A carefully designed longitudinal study needs to be conducted that collects data on prenatal events and behaviors, and determines the outcome of all pregnancies within se-

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<sup>22</sup> As a result of being briefed on the findings of this research project, the Chief of Naval Personnel issued NAVADMIN 296/97 on 18 December 1997 that fulfilled this recommendation.

lected sea and shore commands. This study cannot be accomplished with extant databases because of the lack of detailed information on exposure to teratogens, life style factors, and spontaneous abortions that do not result in hospitalization.

Conclusion: Some women are endangering the viability of their fetus by not informing their commands promptly of their pregnancy, as required in the Navy pregnancy policy.

Recommendation: The Chief of Naval Education and Training (CNET) should ensure that training on the Navy pregnancy policy explains the criticality of the first trimester of pregnancy and emphasizes the importance of women informing their commands of their pregnancies promptly. Minimizing the period of exposure to environmental hazards is essential to maternal and fetal health.

Conclusion: The percentage of unplanned pregnancies among junior enlisted women continues to be much higher than that of more senior women, despite the fact that many were using contraceptives when they became pregnant.

Recommendation: The Surgeon General (SG) should increase efforts to educate women *and men* on required behaviors to ensure efficacy of their chosen method of contraception. This recommendation could be accomplished through discussions with women during their gynecological examinations, which usually occur annually. Birth control needs to be discussed with men also. Since for many men the period between physical examinations is 5 years or more, another venue for birth control counseling needs to be found. Perhaps, Navy medical providers could provide "wellness" counseling on a scheduled basis that would address smoking, drinking, stress reduction, contraception, and other health issues.

CNET should attempt to dispel misinformation regarding contraceptives. As a first step, the curriculum for recruits needs to be reviewed to ensure that the advantages and side effects of various methods of birth control are fully explained. Emergency contraception following unprotected sexual intercourse should also be described to recruits. These lessons need to be reinforced in later General Military Training.

Conclusion: Commands are not following the Navy pregnancy policy in regard to counseling women about the help available to them in obtaining child support.

Recommendation: Navy leadership needs to assign the responsibility for informing pregnant women about available means for establishing paternity to someone in the command. The current policy does not state who should do this counseling.

Conclusion: Young enlisted women and men tend to believe that their responsibility to the Navy should not interfere with family planning.

Recommendation: CNET should emphasize commitment and responsibility to the Navy in all training on family planning and in updates of the Responsible Parenting video.

Conclusion: A sizable minority of young men think women should never have children while in the Navy.

Recommendation: Navy leadership should reiterate the Department of the Navy policy statement that "pregnancy and parenthood are compatible with a naval career." Men in their first enlistment need to be the target of this message because of their beliefs concerning pregnancy among Navy women and the increased workload they may experience resulting from pregnant coworkers.

Conclusion: Many enlisted women over 40 years of age have not had a baseline mammogram; most officers have.

Recommendation: The Bureau of Medicine should direct medical providers to review the charts of women 40 or over for the results of a mammogram whenever they are seen for treatment or a routine examination. If there is no evidence of a mammogram within the past two years, the provider should urge the woman to schedule one and enter a note in her medical record.

Several of these recommendations represent efforts to reduce the number of unplanned pregnancies in the Navy, particularly among enlisted women in their first term. The potential for pay-off is great. If the efforts succeed, resources will be husbanded, and a major source of resistance to the increased utilization of women in the Navy will be weakened.

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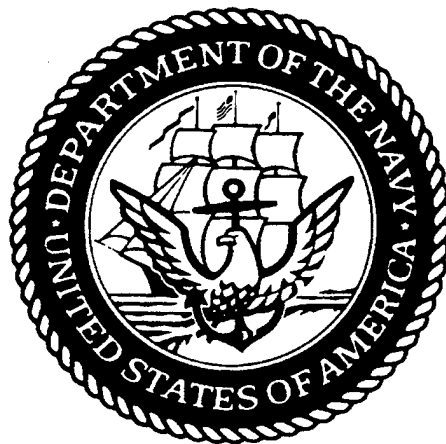
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**Appendix A**  
**Navy Survey of Parenthood and Pregnancy**  
**1997 Female Version**

# NAVY SURVEY OF PARENTHOOD AND PREGNANCY

*1997 Female Version*



Navy Personnel Research and Development Center  
San Diego, California 92152-7250

You have been randomly selected by a computer program to take part in this survey based on your paygrade/rank and sex. Please take the time to fill it out today. Some of the questions are very personal. For this reason, neither your name nor SSN is asked for. No one except the researchers will see your responses, and your command will never know how you answered the questions. Your command probably does not know that you received this survey—we did not inform it. Please do not give the survey to someone else to fill out because we need YOUR opinions. The answers you provide will be used to revise policies and training curriculum.

#### PRIVACY ACT STATEMENT

Authority to request this information is granted under Title 5, U.S. Code 301 and Department of the Navy Regulations. License to administer this survey is granted under OPNAV Report Control Symbol 6500-4, which expires on 30 September 1997.

**PURPOSE:** The purpose of this questionnaire is to collect data to evaluate existing and proposed Navy personnel policies, procedures, and programs.

**ROUTINE USES:** The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center, where the data files will be maintained.

**ANONYMITY:** All responses will be kept secure by the Navy Personnel Research and Development Center. Information you provide will be reported only when statistically summarized with the responses of others, and the responses of no individual will be identified.

**PARTICIPATION:** Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except that your views will not be represented in the final report.

### IMPORTANT INSTRUCTIONS

- \* USE NO. 2 PENCIL ONLY.
- \* Do NOT use ink, ballpoint or felt tip pens.
- \* Erase cleanly and completely any changes you make.
- \* Make black marks that fill the circle.
- \* Do not make stray marks on the form.



**CORRECT MARK:** ●  
**INCORRECT MARK:** ✓ ⊗ ◐ ⊙

#### EXAMPLES

For questions that look like the following, print the required information in each row of boxes provided. Then blacken the corresponding circle under the number or letter you printed.

1. What is your age?

Years	
2	9
0	0
1	1
●	2
3	3
4	4
5	5
6	6
7	7
8	8
●	9

For questions that look like the next example, blacken the circle corresponding to the answer you selected.

2. What is your current marital status?

- ☐ Single, never married
- ☐ Divorced, separated, or widowed
- ☐ Married to Navy servicemember
- ☐ Married to member of another military service or Coast Guard
- ☒ Married to civilian

# BACKGROUND

## PERSONAL

1. What is your age?

Years	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

2. Are you of Spanish/Hispanic origin or descent?

- ☐ Yes  
☐ No

3. What is your racial background?

- ☐ African-American  
☐ Asian/Pacific Islander  
☐ White  
☐ Other (specify: \_\_\_\_\_)

4. What is your current marital status?

- ☐ Single, never married  
☐ Divorced, separated, or widowed  
☐ Married to Navy servicemember  
☐ Married to member of another military service or Coast Guard  
☐ Married to civilian

## CAREER

5. What is your paygrade/rank?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

6. What is your officer designator?

- ☐ Does not apply/I am enlisted

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

7. If you are rated or a designated striker, what is your general rating?

- ☐ Does not apply/I am an officer  
☐ Not rated/not designated striker.

I am:

- ☐ SN  
☐ AN  
☐ FN

A	A	A	A	A
B	B	B	B	B
C	C	C	C	C
D	D	D	D	D
E	E	E	E	E
F	F	F	F	F
G	G	G	G	G
H	H	H	H	H
I	I	I	I	I
J	J	J	J	J
K	K	K	K	K
L	L	L	L	L
M	M	M	M	M
N	N	N	N	N
O	O	O	O	O
P	P	P	P	P
Q	Q	Q	Q	Q
R	R	R	R	R
S	S	S	S	S
T	T	T	T	T
U	U	U	U	U
V	V	V	V	V
W	W	W	W	W
X	X	X	X	X
Y	Y	Y	Y	Y
Z	Z	Z	Z	Z

(Please begin your answer in the left column.)

8. How long have you been on active duty in the Navy? (If you had interrupted service, count all active duty time.)

Years		and		Months	
0	0			0	0
1	1			1	1
2	2			2	2
3	3			3	3
4	4			4	4
5	5			5	5
6	6			6	6
7	7			7	7
8	8			8	8
9	9			9	9

9. To what type of command are you currently assigned?
- ☐ Combatant ship, except not a cruiser, destroyer, or frigate
  - ☐ Cruiser, destroyer, or frigate
  - ☐ Noncombatant ship (e.g., AD, AE, AO, AOE, ARS, AS, LCC)
  - ☐ Deployable squadron
  - ☐ Nondeployable squadron
  - ☐ Other deployable unit
  - ☐ Shore activity or command, but not as a student
  - ☐ Navy funded school as a student (e.g., A or C school, fulltime graduate school, SWOS, flight training, specialty training)

10. How long have you been stationed there?

Years		and		Months	
0	0			0	0
1	1			1	1
2	2			2	2
3	3			3	3
4	4			4	4
5	5			5	5
6	6			6	6
7	7			7	7
8	8			8	8
9	9			9	9

11. What are your current Navy career plans?
- ☐ Probably will leave at the end of this enlistment/obligation
  - ☐ Probably will sign on again, but not stay until eligible to retire
  - ☐ Probably will stay until eligible to retire
  - ☐ Eligible to retire now, but will remain on active duty
  - ☐ Undecided

## PARENTHOOD

1. How many of your children (natural, adopted, or stepchildren) under the age of 21 live in your household? (Include children who would normally live with you but who are not physically with you because you are deployed or on an unaccompanied tour.)

☐ I have no child(ren) under the age of 21 living in my household

	AGE GROUP OF CHILDREN		NUMBER OF CHILDREN IN AGE GROUP					
			0	1	2	3	4	5
a. Birth through 5 weeks			0	1	2	3	4	5
b. 6 wks through 12 mos			0	1	2	3	4	5
c. 13 through 24 mos			0	1	2	3	4	5
d. 25 through 35 mos			0	1	2	3	4	5
e. 3 through 5 yrs			0	1	2	3	4	5
f. 6 through 12 yrs			0	1	2	3	4	5
g. 13 through 15 yrs			0	1	2	3	4	5
h. 16 through 20 yrs			0	1	2	3	4	5

2. While in the Navy, have you ever been a single parent, with or without custody, of a child under the age of 21?

☐ Yes  
☐ No (skip to question 7)

3. How did you become a single parent?

☐ Divorce  
☐ Death of spouse  
☐ Unmarried when child was born  
☐ Adoption  
☐ Other (specify: \_\_\_\_\_)

4. Are you currently a single parent, with or without custody, of a child under the age of 21?

☐ Yes  
☐ No (skip to question 7)

5. While in the Navy, have you ever been a single parent with custody of your child?

☐ No  
☐ Yes, I was a single parent with custody when I entered the Navy  
☐ I was a single parent without custody when I entered the Navy, but I got my child(ren) back afterwards  
☐ I became a single parent with custody after entering the Navy

6. Do you currently have custody (including joint custody) of any of the children referred to in Question 1?

☐ Yes  
☐ No

7. All single parents with custody and military-married-to-military parents must complete the Family Care Certificate (formerly called the Dependent Care Certificate). On this form, parents state who will be responsible for their child(ren) if the parent is recalled to duty, sent TAD, or assigned an unaccompanied tour. Since arriving at your current command, have you completed a Family Care Certificate?
- ☐ No, I am not a single or military-married-to-military parent (skip to next section "Family Planning Attitudes")
  - ☐ Yes (skip to next section "Family Planning Attitudes")
  - ☐ No, because I have not been here 60 days yet
  - ☐ No, although I have been here 60 days and have been told to complete the form
  - ☐ No, although I have been here 60 days, no one has told me to complete the form

8. If you have not completed the Family Care Certificate, how certain are you that the other arrangements that you have made for the care of your child(ren) would work if you were recalled, deployed, sent TAD, or assigned an unaccompanied tour?
- ☐ I am reasonably certain the arrangements would work
  - ☐ I am not sure if the arrangements would work
  - ☐ I am reasonably certain the arrangements would not work
  - ☐ I have not made any pre-arrangements

## FAMILY PLANNING ATTITUDES

1. In your opinion, what is the best age for a woman to have her first child?
- ☐ Before age 20
  - ☐ 20 to 24
  - ☐ 25 to 29
  - ☐ 30 to 34
  - ☐ 35 to 39
  - ☐ 40 or later
2. In your opinion, when in her Navy career is the best time for a woman to become pregnant?
- ☐ Never, being in the Navy and motherhood are not compatible
  - ☐ Whenever the woman wants a child
  - ☐ After her first tour
  - ☐ During a shore tour, but not after getting orders to sea duty
  - ☐ While on sea duty
  - ☐ After receiving orders to shore duty, if the ship is not deploying
  - ☐ While in school

3. When do you think is a good time for a Navy man to start a family?
- ☐ Never, it is too hard while in the Navy
  - ☐ Whenever he and his partner want a child
  - ☐ After his first tour
  - ☐ During a shore tour, but not after getting orders to sea duty
  - ☐ While on sea duty
  - ☐ After receiving orders to shore duty, if the ship is not deploying
  - ☐ While in school
4. The following statements describe beliefs concerning birth control. Please indicate how well each statement reflects your beliefs.

- |  | Not at all true of me | Slightly true of me   | Somewhat true of me   | Mostly true of me     | Completely true of me | Not applicable        |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| a. I think it is important to use birth control after marriage until you decide to start a family.                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. I have had sexual intercourse without me or my partner using birth control even though I did not want to get pregnant.            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. I think planning ahead about birth control can spoil the fun of sex.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. I would have sexual intercourse without birth control if my partner wanted me to.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. When a birth control method is not available, I believe you just have to take a chance and hope that a pregnancy does not result. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. I would feel comfortable going to a military doctor about birth control.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. If I had to go to a corpsman concerning birth control, I would feel comfortable.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. The whole idea of birth control is embarrassing to me.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| i. I always make it my responsibility to discuss birth control with my partner.  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| j. I think a woman has a right to say "no" to intercourse at any time.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| k. I think it is important for men to get involved in birth control.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| l. I think using condoms to prevent the spread of sexually transmitted disease is more trouble than it is worth.                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| m. My most recent partner encouraged use of birth control.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| n. I feel comfortable with the medical personnel aboard my ship.   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

## BIRTH CONTROL PRACTICES

1. Was your last physical exam at a Navy medical treatment facility?  
☐ Yes  
☐ No
2. Was birth control discussed at that time?  
☐ Yes  
☐ No
3. Do you or your partner usually use a form of birth control? (If you have more than one partner, answer with your usual or most recent partner in mind.)  
☐ Yes (skip to question 5)  
☐ No
4. Why don't you use birth control?  
☐ I am not sexually active (skip to question 9)  
☐ I (or my partner) have been sterilized (tubes tied or vasectomy) (skip to question 9)  
☐ I (or my partner) am not fertile (skip to question 9)  
☐ My (or my partner's) religious/personal beliefs do not permit use of birth control (skip to question 9)  
☐ The rhythm method or withdrawal works well enough (skip to question 9)  
☐ I am pregnant  
☐ I am too embarrassed to ask for it (skip to question 9)  
☐ Other (specify: \_\_\_\_\_)
5. What method of birth control do you or your partner usually use?  
 (Mark ALL that apply.)  
☐ Birth control pill  
☐ Condom (rubber) only  
☐ Condom with another method  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly  
☐ Depo Provera® (a shot that lasts up to 3 months)  
☐ Norplant® (an implant in the arm that lasts up to 5 years)  
☐ None  
☐ Other (specify: \_\_\_\_\_)

6. What method of birth control did you or your partner use the last time you had sex?  
 (Mark ALL that apply.)  
☐ Birth control pill  
☐ Condom (rubber)  
☐ Condom with another method  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly  
☐ Depo Provera® (a shot that lasts up to 3 months) (skip to question 8)  
☐ Norplant® (an implant in the arm that lasts up to 5 years) (skip to question 8)  
☐ None  
☐ Other (specify: \_\_\_\_\_)

7. Two long-term methods of birth control are now available: Norplant® and Depo Provera®. What is the primary reason that you do NOT use one of these methods?  
 (Mark only ONE for each method.)

### Norplant®

- ☐ I don't know enough about it
- ☐ I prefer my current method
- ☐ I am afraid of the side effects
- ☐ It is not available where I am stationed
- ☐ I tried it and stopped using it
- ☐ Other (specify: \_\_\_\_\_)

### Depo Provera®

- ☐ I don't know enough about it
- ☐ I prefer my current method
- ☐ I am afraid of the side effects
- ☐ It is not available where I am stationed
- ☐ I tried it and stopped using it
- ☐ Other (specify: \_\_\_\_\_)

8. Before you entered the Navy, did you use the same method of birth control as you usually use now?  
☐ Yes  
☐ No, I used another method (specify: \_\_\_\_\_)  
☐ No, I didn't use birth control before entering the Navy
9. Since entering the Navy, what have been your sources of information on birth control?  
 (Mark ALL that apply.)  
☐ Military medical personnel  
☐ Class at Recruit Training (RTC)  
☐ Training after RTC  
☐ Outside agency (civilian doctor, women's clinic)  
☐ Friends or relatives  
☐ Printed materials (books, magazines, pamphlets)  
☐ Other (specify: \_\_\_\_\_)

10. Indicate whether you believe the following statements are true, false, or you don't know:

- |   | True                  | False                 | Don't know            |
|---|-----------------------|-----------------------|-----------------------|
| a. Some prescription medicines, such as certain antibiotics, interact with birth control pills making them less effective   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| b. Condoms are just as effective as the pill in preventing pregnancy  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| c. Women cannot get pregnant during their menstrual period  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| d. Birth control medicines (i.e., the pill, Depo Provera®, Norplant®) lead to cancer  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| e. If a woman misses 2 or more pills in a row, she must use a supplementary method of birth control (along with the pill) for the remainder of the month to be safe | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| f. Women who take the birth control pill gain weight  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| g. All methods of birth control are equally effective   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| h. Skipping the pill is OK unless you plan to have sex that night   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

11. In which of the following areas has your current command provided training?

(Mark ALL that apply.)

- ☐ Sexually Transmitted Diseases (STDs)  
☐ Methods of birth control  
☐ Navy's pregnancy policy  
☐ None of the above has been provided at this command

## PREGNANCY

1. If the current policy were changed and women having a normal pregnancy were allowed to go to sea until the 20th week, would you want to stay aboard ship if you were pregnant?

- ☐ Yes  
☐ No  
☐ Don't know

2. If you have ever had a sea duty tour, were you tested for pregnancy before being transferred to the ship?

- ☐ I have never been on sea duty  
☐ Yes, I was tested for pregnancy  
☐ No, I was not tested for pregnancy

3. At any time since entering the Navy, have you been pregnant?

- ☐ No (skip to the next section, "Medical Questions" on page 10)  
☐ Yes

If yes, how many times?

- |                         |                                  |
|-------------------------|----------------------------------|
| <input type="radio"/> 1 | <input type="radio"/> 6          |
| <input type="radio"/> 2 | <input type="radio"/> 7          |
| <input type="radio"/> 3 | <input type="radio"/> 8          |
| <input type="radio"/> 4 | <input type="radio"/> 9          |
| <input type="radio"/> 5 | <input type="radio"/> 10 or more |

4. Did you become pregnant between 1 October 1995 and 30 September 1996? (Do NOT count pregnancies that began before 1 October 1995 even though you were pregnant on that date.)

- ☐ No  
☐ Yes

If yes, how many times?

- ☐ 1  
☐ 2  
☐ 3 or more

5. Are you pregnant now?

- ☐ Yes  
☐ No  
☐ I think I may be pregnant, but have not been tested

The next set of questions asks about your most recent pregnancy (it could be your current or only pregnancy) since entering the Navy. (If you have never been pregnant while in the Navy, skip to the next section, "Medical Questions" on page 10.)

6. What was your age when you became pregnant?

Years	
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

7. What was your paygrade/rank when you became pregnant?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

8. Did you have orders to a sea duty squadron or ship when you became pregnant?

- ☐ Yes  
☐ No

9. What was the outcome of that pregnancy?

- ☐ I am still pregnant  
☐ Live birth (delivery of a live child after 36th week of pregnancy)  
☐ Premature birth (delivery of a live child in the 20th through 36th week of pregnancy)  
☐ Stillbirth (delivery of a dead fetus after 20th week of pregnancy)  
☐ Miscarriage (delivery of a fetus before 20th week of pregnancy)  
☐ Ectopic pregnancy  
☐ Abortion

10. Was this pregnancy planned?

- ☐ Yes  
☐ No

11. Were you using birth control when you became pregnant?

- ☐ Yes  
☐ No (skip to question 13)

12. What method of birth control were you using?

- ☐ Birth control pill  
☐ Condom (rubber)  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly)  
☐ Rhythm method  
☐ Withdrawal  
☐ Other (specify: \_\_\_\_\_)

13. Were you or your partner drinking alcohol within 3 hours of your becoming pregnant?

- ☐ Yes, I was  
☐ Yes, he was  
☐ Yes, we both were  
☐ No

14. What was your marital status at the time you became pregnant?

- ☐ Married  
☐ Single, never married  
☐ Divorced, separated, or widowed

15. What was the father's military status?

- ☐ A civilian  
☐ In the Navy  
☐ In some other service

→ If military, what was his paygrade/rank?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

16. About how many weeks pregnant were you when:

a. You found you were pregnant?

0	0
1	1
2	2
3	3
4	
5	
6	
7	
8	
9	

b. Your command was notified?

0	0
1	1
2	2
3	3
4	
5	
6	
7	
8	
9	

17. If there was more than a week's delay between your finding out and your command being notified, what was the reason for the delay?

- ☐ There was no delay  
☐ I was on leave or TAD when I found out  
☐ I wanted to think about an abortion  
☐ I wanted to delay my command finding out  
(Please indicate why: \_\_\_\_\_)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ Other (specify: \_\_\_\_\_)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

18. Were you offered information from your chain of command or legal office on how you could get financial support from the father?
- ☐ Yes
- ☐ No
- ☐ No, since I was married they probably thought I didn't need it

19. To what type of command were you assigned when you became pregnant?
- ☐ Combatant ship, except not a cruiser, destroyer, or frigate
- ☐ Cruiser, destroyer, or frigate
- ☐ Noncombatant ship (e.g., AD, AE, AO, AOE, ARS, AS, LCC)
- ☐ Deployable squadron
- ☐ Nondeployable squadron
- ☐ Other deployable unit
- ☐ Shore activity or command, but not as a student
- ☐ Navy funded school as a student (e.g., A or C school, fulltime graduate school, SWOS, flight training, specialty training)

20. If you were in a sea duty unit, what part of the cycle was the unit in when you became pregnant?
- ☐ I was not in a sea duty unit
- ☐ Within 6 months of going on deployment
- ☐ Deployed
- ☐ Within 6 months after deploying
- ☐ Major overhaul
- ☐ Other

21. Were you (or are you scheduled to be) transferred or moved as a result of being pregnant?
- (Choose ALL that apply from each column.)

- |  | Already Moved         | Scheduled to Move     |
|--|-----------------------|-----------------------|
| a. From sea to shore duty  | <input type="radio"/> | <input type="radio"/> |
| b. From overseas shore duty to CONUS   | <input type="radio"/> | <input type="radio"/> |
| c. From a deploying squadron to the air station or non-deploying squadron                                | <input type="radio"/> | <input type="radio"/> |
| d. From the work center I was in to another work center in the command                                   | <input type="radio"/> | <input type="radio"/> |
| e. From _____ to _____   | <input type="radio"/> | <input type="radio"/> |
| <input type="radio"/> No, I continued to work where I was before becoming pregnant (skip to question 26) |                       |                       |

22. How many weeks after the command was informed of your pregnancy were you transferred or moved?

Weeks	
0	0
1	1
2	2
3	3
	4
	5
	6
	7
	8
	9

23. If you were on sea duty at the time, how long before your original prospective rotation date (PRD) were you moved ashore?
- ☐ Not applicable, I was not on sea duty

Years	and	Months
0		0
1		1
2		2
3		3
		4
		5
		6
		7
		8
		9

24. Who was the primary person who wanted you to be transferred or moved?
- ☐ Doctor or other medical person
- ☐ My immediate supervisor
- ☐ Someone above my supervisor
- ☐ I asked to be moved
- ☐ Navy policy required that I be moved
- ☐ I don't know
25. What type of work did you do after the move?
- ☐ Same as before, but in a different location
- ☐ Admin/clerical kind of work that is not in my rating/designator
- ☐ Duty office/phone watch
- ☐ 1st LT division
- ☐ Other (specify: \_\_\_\_\_)

26. After you became pregnant, did your coworkers treat you differently? (Mark ALL that apply.)
- ☐ No
  - ☐ Yes, they were more supportive
  - ☐ Yes, they hassled me
  - ☐ Yes, they ignored me
  - ☐ Yes, they were overprotective
27. After you became pregnant, did your immediate supervisor treat you differently? (Mark ALL that apply.)
- ☐ No
  - ☐ Yes, he/she showed more concern for my welfare
  - ☐ Yes, he/she was overprotective
  - ☐ Yes, he/she avoided or ignored me
  - ☐ Yes, he/she treated me with less respect
28. Where did you deliver your baby?
- ☐ I did not deliver
  - ☐ At a Navy hospital
  - ☐ At a non-Navy military hospital
  - ☐ At a civilian hospital or clinic
  - ☐ Other (specify: \_\_\_\_\_)

## MEDICAL QUESTIONS

1. In the past 12 months, have you had a gynecological! (pelvic) exam?
- ☐ No (skip to question 4)
  - ☐ Yes, in a Navy medical clinic or hospital
  - ☐ Yes, in another DoD clinic or hospital
  - ☐ Yes, in a civilian medical facility
  - ☐ Yes, several exams at different facilities
2. How long did you have to wait to get:
- An appointment?**
- ☐ Less than 1 week
  - ☐ 1 to 2 weeks
  - ☐ 3 to 4 weeks
  - ☐ More than 4 weeks
- Results of a Pap smear?**
- ☐ Less than 1 week
  - ☐ 1 to 2 weeks
  - ☐ 3 to 4 weeks
  - ☐ More than 4 weeks

3. Was the pelvic exam part of a pre-deployment medical?
- ☐ Yes
  - ☐ No
4. If you are at least 40 years old, have you had a baseline mammogram?
- ☐ I am younger than 40
  - ☐ Yes
  - ☐ No
5. Is your Navy doctor willing to prescribe the method of birth control that you want?
- ☐ Yes
  - ☐ No, I want \_\_\_\_\_ (specify)
6. How satisfied have you been with the care you received through OB/GYN departments at Navy medical treatment facilities?
- ☐ Generally, very satisfied
  - ☐ Generally, satisfied
  - ☐ Generally, dissatisfied
  - ☐ Generally, very dissatisfied
7. Sexually transmitted diseases (STDs) can negatively affect a woman's ability to become pregnant or give birth to healthy infants. At any time since entering the Navy, have you ever had genital herpes, trichomoniasis, chlamydia, gonorrhea, syphilis, or any other STD?
- ☐ No
  - ☐ Yes (specify which: \_\_\_\_\_)

*You have finished the survey. Please use the next page to make any comments you wish or to expand your answer to a question in the survey (please indicate which question).*

***Thank you for your participation!***

## COMMENTS

Please return the completed questionnaire in the enclosed, pre-addressed, postage-paid envelope. If the envelope is missing, mail the form to:

Navy Personnel Research and Development Center  
Survey Operations Center (SOC)  
53335 Ryne Road  
San Diego, CA 92152-7250

**Appendix B**  
**Navy Survey of Parenthood and Pregnancy**  
**1997 Male Version**

# NAVY SURVEY OF PARENTHOOD AND PREGNANCY

*1997 Male Version*



Navy Personnel Research and Development Center  
San Diego, California 92152-7250

You have been randomly selected by a computer program to take part in this survey based on your pay grade, rank and sex. Please take the time to fill it out today. Some of the questions are very personal. For this reason, neither your name nor SSN is asked for. No one except the researchers will see your responses, and your command will never, nor will it be able to answer the questions. Your command probably does not know that you received this survey—we did not inform it. Please do not give the survey to someone else to fill out because we need your responses. The answers you provide will be used to revise policies and training throughout the Navy.

### PRIVACY ACT STATEMENT

Authority to request this information is granted under Title 5, U.S. Code 301 and Department of the Navy Regulations. License to administer this survey is granted under OPNAV Report Control Symbol 6500-4, which expires on 30 September 1997.

**PURPOSE:** The purpose of this questionnaire is to collect data to evaluate existing and proposed Navy personnel policies, procedures, and programs.

**ROUTINE USES:** The information provided in this questionnaire will be analyzed by the Navy Personnel Research and Development Center, where the data files will be maintained.

**ANONYMITY:** All responses will be kept secure by the Navy Personnel Research and Development Center. Information you provide will be reported only when statistically summarized with the responses of others, and the responses of no individual will be identified.

**PARTICIPATION:** Completion of this questionnaire is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except that your views will not be represented in the final report.

## IMPORTANT INSTRUCTIONS

- \* **USE NO. 2 PENCIL ONLY.**
- \* **Do NOT use ink, ballpoint or felt tip pens.**
- \* **Erase cleanly and completely any changes you make.**
- \* **Make black marks that fill the circle.**
- \* **Do not make stray marks on the form.**



**CORRECT MARK:** ●  
**INCORRECT MARK:** ○, ⊗, ⊙, ⊖

### EXAMPLES

For questions that look like the following, print the required information in each row of boxes provided. Then blacken the corresponding circle under the number or letter you printed.

1. What is your age?

Years	
2	9
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8

For questions that look like the next example, blacken the circle corresponding to the answer you selected.

2. What is your current marital status?

- ☐ Single, never married
- ☐ Divorced, separated, or widowed
- ☐ Married to Navy servicemember
- ☐ Married to member of another military service or Coast Guard
- ☒ Married to civilian

# BACKGROUND

## PERSONAL

1. What is your age?

Years	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

2. Are you of Spanish/Hispanic origin or descent?

- ☐ Yes  
☐ No

3. What is your racial background?

- ☐ African-American  
☐ Asian/Pacific Islander  
☐ White  
☐ Other (specify: \_\_\_\_\_)

4. What is your current marital status?

- ☐ Single, never married  
☐ Divorced, separated, or widowed  
☐ Married to Navy servicemember  
☐ Married to member of another military service or Coast Guard  
☐ Married to civilian

## CAREER

5. What is your paygrade/rank?

- |                           |                           |                           |
|---------------------------|---------------------------|---------------------------|
| <input type="radio"/> E-1 | <input type="radio"/> W-2 | <input type="radio"/> O-1 |
| <input type="radio"/> E-2 | <input type="radio"/> W-3 | <input type="radio"/> O-2 |
| <input type="radio"/> E-3 | <input type="radio"/> W-4 | <input type="radio"/> O-3 |
| <input type="radio"/> E-4 |                           | <input type="radio"/> O-4 |
| <input type="radio"/> E-5 |                           | <input type="radio"/> O-5 |
| <input type="radio"/> E-6 |                           | <input type="radio"/> O-6 |
| <input type="radio"/> E-7 |                           |                           |
| <input type="radio"/> E-8 |                           |                           |
| <input type="radio"/> E-9 |                           |                           |

6. What is your officer designator?

- ☐ Does not apply/I am enlisted

0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

7. If you are rated or a designated striker, what is your general rating?

- ☐ Does not apply/I am an officer  
☐ Not rated/not designated striker.

I am:

- ☐ SN  
☐ AN  
☐ FN

A	A	A	A
B	B	B	B
C	C	C	C
D	D	D	D
E	E	E	E
F	F	F	F
G	G	G	G
H	H	H	H
I	I	I	I
J	J	J	J
K	K	K	K
L	L	L	L
M	M	M	M
N	N	N	N
O	O	O	O
P	P	P	P
Q	Q	Q	Q
R	R	R	R
S	S	S	S
T	T	T	T
U	U	U	U
V	V	V	V
W	W	W	W
X	X	X	X
Y	Y	Y	Y
Z	Z	Z	Z

(Please begin your answer in the left column.)

8. How long have you been on active duty in the Navy? (If you had interrupted service, count all active duty time.)

Years	and	Months
0		0
1		1
2		2
3		3
4		4
5		5
6		6
7		7
8		8
9		9

9. To what type of command are you currently assigned?

- ☐ Combatant ship, except not a cruiser, destroyer, or frigate  
☐ Cruiser, destroyer, or frigate  
☐ Noncombatant ship (e.g., AD, AE, AO, AOE, ARS, AS, LCC)  
☐ Deployable squadron  
☐ Nondeployable squadron  
☐ Other deployable unit  
☐ Shore activity or command, but not as a student  
☐ Navy funded school as a student (e.g., A or C school, fulltime graduate school, SWOS, flight training, specialty training)

10. How long have you been stationed there?

Years	and	Months
0		0
1		1
2		2
3		3
4		4
5		5
6		6
7		7
8		8
9		9

11. What are your current Navy career plans?

- ☐ Probably will leave at the end of this enlistment/obligation  
☐ Probably will sign on again, but not stay until eligible to retire  
☐ Probably will stay until eligible to retire  
☐ Eligible to retire now, but will remain on active duty  
☐ Undecided

## PARENTHOOD

1. How many of your children (natural, adopted, or stepchildren) under the age of 21 live in your household? (Include children who would normally live with you but who are not physically with you because you are deployed or on an unaccompanied tour.)

☐ I have no child(ren) under the age of 21 living in my household

AGE GROUP OF CHILDREN	NUMBER OF CHILDREN IN AGE GROUP					
a. Birth through 5 weeks	0	1	2	3	4	5
b. 6 wks through 12 mos	0	1	2	3	4	5
c. 13 through 24 mos	0	1	2	3	4	5
d. 25 through 35 mos	0	1	2	3	4	5
e. 3 through 5 yrs	0	1	2	3	4	5
f. 6 through 12 yrs	0	1	2	3	4	5
g. 13 through 15 yrs	0	1	2	3	4	5
h. 16 through 20 yrs	0	1	2	3	4	5

2. While in the Navy, have you ever been a single parent, with or without custody, of a child under the age of 21?

☐ Yes  
☐ No (skip to question 7)

3. How did you become a single parent?

☐ Divorce  
☐ Death of spouse  
☐ Unmarried when child was born  
☐ Adoption  
☐ Other (specify: \_\_\_\_\_)

4. Are you currently a single parent, with or without custody, of a child under the age of 21?

☐ Yes  
☐ No (skip to question 7)

5. While in the Navy, have you ever been a single parent with custody of your child?

☐ No  
☐ Yes, I was a single parent with custody when I entered the Navy  
☐ I was a single parent without custody when I entered the Navy, but I got my child(ren) back afterwards  
☐ I became a single parent with custody after entering the Navy

6. Do you currently have custody (including joint custody) of any of the children referred to in Question 1?

☐ Yes  
☐ No

7. All single parents with custody and military-married-to-military parents must complete the Family Care Certificate (formerly called the Dependent Care Certificate). On this form, parents state who will be responsible for their child(ren) if the parent is recalled to duty, sent TAD, or assigned an unaccompanied tour. Since arriving at your current command, have you completed a Family Care Certificate?
- ☐ No, I am not a single or military-married-to-military parent (skip to next section "Family Planning Attitudes")
  - ☐ Yes (skip to next section "Family Planning Attitudes")
  - ☐ No, because I have not been here 60 days yet
  - ☐ No, although I have been here 60 days and have been told to complete the form
  - ☐ No, although I have been here 60 days, no one has told me to complete the form
8. If you have not completed the Family Care Certificate, how certain are you that the other arrangements that you have made for the care of your child(ren) would work if you were recalled, deployed, sent TAD, or assigned an unaccompanied tour?
- ☐ I am reasonably certain the arrangements would work
  - ☐ I am not sure if the arrangements would work
  - ☐ I am reasonably certain the arrangements would not work
  - ☐ I have not made any pre-arrangements

## FAMILY PLANNING ATTITUDES

1. In your opinion, what is the best age for a woman to have her first child?
- ☐ Before age 20
  - ☐ 20 to 24
  - ☐ 25 to 29
  - ☐ 30 to 34
  - ☐ 35 to 39
  - ☐ 40 or later
2. In your opinion, when in her Navy career is the best time for a woman to become pregnant?
- ☐ Never, being in the Navy and motherhood are not compatible
  - ☐ Whenever the woman wants a child
  - ☐ After her first tour
  - ☐ During a shore tour, but not after getting orders to sea duty
  - ☐ While on sea duty
  - ☐ After receiving orders to shore duty, if the ship is not deploying
  - ☐ While in school

3. When do you think is a good time for a Navy man to start a family?
- ☐ Never, it is too hard while in the Navy
  - ☐ Whenever he and his partner want a child
  - ☐ After his first tour
  - ☐ During a shore tour, but not after getting orders to sea duty
  - ☐ While on sea duty
  - ☐ After receiving orders to shore duty, if the ship is not deploying
  - ☐ While in school
4. The following statements describe beliefs concerning birth control. Please indicate how well each statement reflects your beliefs.

	Not at all true of me	Slightly true of me	Somewhat true of me	Mostly true of me	Completely true of me	Not applicable
a. I think it is important to use birth control after marriage until you decide to start a family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. I have had sexual intercourse without me or my partner using birth control even though I did not want to father a child.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. I think planning ahead about birth control can spoil the fun of sex.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. I would have sexual intercourse without birth control if my partner wanted me to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. When a birth control method is not available, I believe you just have to take a chance and hope that a pregnancy does not result.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. I would feel comfortable going to a military doctor about birth control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. If I had to go to a corpsman concerning birth control, I would feel comfortable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The whole idea of birth control is embarrassing to me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. I always make it my responsibility to discuss birth control with my partner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. I think a woman has a right to say "no" to intercourse at any time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. I think it is important for men to get involved in birth control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. I think using condoms to prevent the spread of sexually transmitted disease is more trouble than it is worth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. My most recent partner encouraged use of birth control.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
n. I feel comfortable with the medical personnel aboard my ship.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## BIRTH CONTROL PRACTICES

1. Was your last physical exam at a Navy medical treatment facility?

- ☐ Yes  
☐ No

2. Was birth control discussed at that time?

- ☐ Yes  
☐ No

3. Do you or your partner usually use a form of birth control? (If you have more than one partner, answer with your usual or most recent partner in mind.)

- ☐ Yes (skip to question 5)  
☐ No

4. Why don't you use birth control?

- ☐ I am not sexually active (skip to question 9)  
☐ I (or my partner) have been sterilized (tubes tied or vasectomy) (skip to question 9)  
☐ I (or my partner) am not fertile (skip to question 9)  
☐ My (or my partner's) religious/personal beliefs do not permit use of birth control (skip to question 9)  
☐ The rhythm method or withdrawal works well enough (skip to question 9)  
☐ My partner is pregnant  
☐ I am too embarrassed to ask for it (skip to question 9)  
☐ Other (specify: \_\_\_\_\_)

5. What method of birth control do you or your partner usually use?

(Mark ALL that apply.)

- ☐ Birth control pill  
☐ Condom (rubber) only  
☐ Condom with another method  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly  
☐ Depo Provera® (a shot that lasts up to 3 months)  
☐ Norplant® (an implant in the arm that lasts up to 5 years)  
☐ None  
☐ Other (specify: \_\_\_\_\_)

6. What method of birth control did you or your partner use the last time you had sex?

(Mark ALL that apply.)

- ☐ Birth control pill  
☐ Condom (rubber)  
☐ Condom with another method  
☐ Diaphragm  
☐ IUD (intrauterine device)  
☐ Spermicidal foam or jelly  
☐ Depo Provera® (a shot that lasts up to 3 months) (skip to question 8)  
☐ Norplant® (an implant in the arm that lasts up to 5 years) (skip to question 8)  
☐ None  
☐ Other (specify: \_\_\_\_\_)

7. Two long-term methods of birth control are now available: Norplant® and Depo Provera®. What is the primary reason that your partner does NOT use one of these methods? (Mark only ONE for each method.)

**Norplant®**

- ☐ She doesn't know enough about it  
☐ We prefer our current method  
☐ She is afraid of the side effects  
☐ It is not available at her clinic  
☐ She tried it and stopped using it  
☐ Other (specify: \_\_\_\_\_)

**Depo Provera®**

- ☐ She doesn't know enough about it  
☐ We prefer our current method  
☐ She is afraid of the side effects  
☐ It is not available at her clinic  
☐ She tried it and stopped using it  
☐ Other (specify: \_\_\_\_\_)

8. Before you entered the Navy, did you use the same method of birth control as you usually use now?

- ☐ Yes  
☐ No, I used another method (specify: \_\_\_\_\_)  
☐ No, I didn't use birth control before entering the Navy

9. Since entering the Navy, what have been your sources of information on birth control? (Mark ALL that apply.)

- ☐ Military medical personnel  
☐ Class at Recruit Training (RTC)  
☐ Training after RTC  
☐ Outside agency (civilian doctor, women's clinic)  
☐ Friends or relatives  
☐ Printed materials (books, magazines, pamphlets)  
☐ Other (specify: \_\_\_\_\_)

10. Indicate whether you believe the following statements are true, false, or you don't know:

	True	False	Don't know
a. Some prescription medicines, such as certain antibiotics, interact with birth control pills making them less effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Condoms are just as effective as the pill in preventing pregnancy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Women cannot get pregnant during their menstrual period	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Birth control medicines (i.e., the pill, Depo Provera®, Norplant®) lead to cancer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. If a woman misses 2 or more pills in a row, she must use a supplementary method of birth control (along with the pill) for the remainder of the month to be safe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Women who take the birth control pill gain weight	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. All methods of birth control are equally effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. It is OK if a woman skips the pill unless she plans to have sex that night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. In which of the following areas has your current command provided training?

(Mark ALL that apply.)

- ☐ Sexually Transmitted Diseases (STDs)
- ☐ Methods of birth control
- ☐ Navy's pregnancy policy
- ☐ None of the above has been provided at this command

*You have finished the survey. Please use the section below to make any comments you wish or to expand your answer to a question in the survey (please indicate which question).*

**Thank you for your participation!**

## COMMENTS

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**Please return the completed questionnaire in the enclosed, pre-addressed, postage-paid envelope. If the envelope is missing, mail the form to:**

**Navy Personnel Research and Development Center  
Survey Operations Center (SOC)  
53335 Ryne Road  
San Diego, CA 92152-7250**

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